RCMA

NEWSLETTER

JANUARY 1987

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FOR YOUR INFORMATION:

1. Input to the RCMA Newsletter must be mailed to the proper editors, whose addresses are included in the individual column headlines. If no particular column seems appropiate, send input to RCMA, P.O. Box 1198, Manhattan Beach, CA 90266-8198

2. To forward a letter to a specific RCMA member whose address you do not know, put your message to that person in a stamped envelope with your return address on it; mail to RCMA General Manager, P.O. Box 542, Silverado, CA 92676.

3. PLEASE INCLUDE YOUR RCMA MEMBERSHIP NUMBER WITH ALL CORRESPONDENCE to newsletter editors or club headquarters.

4. If you require a reply when writing to RCMA headquarters or to one of the editors, you MUST enclose a self-addressed, stamped envelope.

5. Please write on only one side of the paper.

6. Please don't combine in one letter several items that should go to different addresses.

7. If you want to type what you submit to the newsletter, please don't exceed a seven-inch column width and please single space. Doing this may save an editor from having to retype the material. Please don't use script type.

8. Your RCMA membership number and expiration date appear on your newsletter mailing label.

9. You may join or renew your membership for ONLY one year at a time.

10. RCMA accepts paid advertising. For information on advertising rates and mechanical requirements, contact Carol Ruth, RCMA Advertising Manager, P.O. Box 542, Silverado, CA 92676.

RCMA NEWSLETTER

ISSUE 131 JANUARY 1987

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CONTACTING RCMA?

Membership applications or renewals, address changes, inquiries about delivery or renewal problems:

Write to: RCMA General Manager
P.O. Box 542
Silverado, CA 92676

Comments or questions about RCMA club policy or newsletter content: Write to: William Mauldin, RCMA General Editor
961 Azallea Street
Boca Raton, FL 33432

Letters for publication in "Your Thoughts" column: Write to: Kurt Swaney, RCMA Assistant Editor
P.O. Box 1198
Manhattan Beach, CA 90266-8198

Correspondence sent to RCMA's Anaheim Post Office Box will still be answered, but there will be a 4-6 week delay.

Universal Studios shooting "Fletch" at Santa Monica Beach. Frequencies used included 173.375, and radio mikes in the 160 mhz band.

Photo by Hugh Stegman

The RCMA Newsletter is published by members of the RADIO COMMUNICATIONS MONITORING ASSOCIATION, Inc., P.O. Box 4563, Anaheim CA 92803. Subscription rate/membership fee is $16.50 for U.S. residents. For persons in other countries, the following rates apply: Canada and Mexico—$18.50; Europe—$20.00, South Pacific and Asia—$21.50. These dues are payable in U.S. funds and are subject to change. Information contained herein is obtained primarily from members and does not necessarily present the position or reflect the opinion of RCMA as a whole. The RCMA does not necessarily recommend or endorse products or services advertised herein. The publication is copyrighted ©. Reproduction of any material in this newsletter is prohibited without prior written consent.

CALENDAR

Send notices of upcoming events for the Calender section to:
John R. Clark, 2701 Fairview Road, Costa Mesa, CA 92620
Deadline: 1st of the month two months prior to cover date.

R.C.M.A. Greater L.A. Area Chapter

We are still in the process or a reorganization. Check this column next month. Late minute information may appear on 446.375 MHz.

R.C.M.A. West Los Angeles Chapter

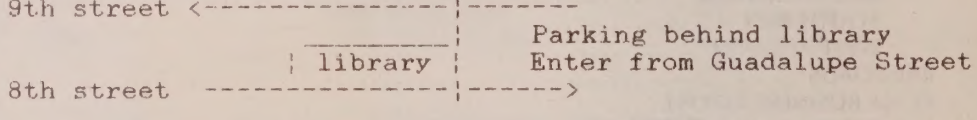
Contact : Hugh Stegman (CA-LA-472)
Talk in: 146.925 MHz {-600 PL-2A} Tues 1930 hrs net.

The new West Los Angeles Chapter of RCMA meets on the 2nd Wednesday of every month, at 7:30 PM, at Shakey's on Sepulveda Blvd. and Playa or Jefferson (depends on which way you're going), in Culver City. This is few blocks north of Fox Hills Mall, and the 405 freeway exit at Slauson.

Meeting scheduled for Dec 10, 1986. Come for frequency swapping and general fun.

Austin Area Radio Listeners Meeting

Meeting every 2nd Tuesday 6:45 PM Austin Public Library 4th floor room B. For more information, contact Dan Parkhurst ND 001
7900 B Brodie Lane, Austin, TX 78754



R.C.M.A. Chicago Chapter

Contact Edward Robert Sirovy IL-004 312 969 2856
311 S. Williams Street, Westmont, Il 60559

Saturday November 15 1986 12:30 PM

Visitors are welcome but please confirm the date in advance.

A SASE on file assures notification of tours and other items which may be scheduled on short notice.

R.C.M.A. for D.C., MD, VA, & DE

Contact: Capitol Hill Monitors % Alan Henney (MD 069)
6912 Prince Georges Ave, Takoma Park, MD 20912

Local chapter newsletter is supplementary to the RCMA newsletter. Because members are so far apart, no meetings are presently scheduled. However, anyone interested in corresponding or meeting local area members may send their name, address, phone (optional) & monitoring interests to above address. A list of these names and interests will be compiled and sent to individuals on the list. Visitor, traveler, frequency & newsletter requests are also welcome.

R.C.M.A. Minneapolis – St. Paul Area Chapter

Contact: Chuck Steier MN-008 (612) 927-9253
4820 Hwy 7, Minneapolis, MN 55416

A SASE on file assures notification of chapter activities (tours, gatherings, etc). Non members are welcome to attend.

All Ohio Scanner Club

Contact David B. Marshall OH-146, Managing Editor
50 Villa Road, Springfield, OH 45503-1036

The All Ohio Scanner Club covers the area of Indiana, Kentucky, Michigan, Pennsylvania, West Virginia, and Ontario, Canada. We welcome members from these and other areas who wish to join our club.

Sample Newsletter: $1.00 plus $0.39 stamp. Membership information for a large SASE to the Post Office Box listed above.

R.C.M.A. Philadelphia Chapter

Contact Gerald H. Shoaf PA-036 Floyd Schoenberg PA-076
C. Willard Lord PA-164 (215) 356-1982
P.O. Box 213, Upper Darby. PA 19082

Meetings held the first Monday evening of each month at 8 PM

Saint James Church (next to "The Grange").
Corner of Myrtle Ave & Warwick Road
Havertown, PA 19083

Talk in CB Ch 9, GRMS 467/462.675 {4a} or {6a}
Hams 147.66/.06

R.C.M.A. Wisconsin Chapter

Contact Scott W. Miller WI-039
122 Greenbriar Drive, Sun Prairie, WI 53590

NEED BACK ISSUES OF THE RCMA NEWSLETTER:

Lots (Months/Year)	No. of Issues	Price
Sept 75 — June/July 76 (No Oct. or Nov. Published)	7	$2.00
August — Dec. 76 (No Oct. Published)	4	$3.00
Jan. — June 77	6	$4.00
July — Dec. 77	6	$4.00
Jan. — June 78	6	$5.00
July — Dec. 78	6	$5.00
Jan. — June 79	6	$6.00
July — Dec. 79	6	$7.00

1980—to date issues are available at $1.50 per copy

Order Total	Include This Amount of Postage
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Over $35	$7.00

Send your request & check/M.O. (payable to RCMA) to:
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P.O. Box 542
Silverado, CA 92676

your thoughts

Kurt Swaney, RCMA Assistant Editor
P.O. Box 1198, Manhattan Beach, CA 90266-8198

Your Thoughts is RMCA's members forum on current topics of interest to the scanner hobbyist. If you have any thoughts you would like to express, RCMA encourages you to send them in.

All letters must include your name, address, and RCMA membership number. Due to space limitations, RCMA reserves the right to condense submitted material.

NO COLUMN THIS MONTH

ASSOCIATION OF NORTH AMERICAN RADIO CLUBS

NEWS HIGHLIGHTS

ANARC is a federation of the most responsible, well established radio listening clubs in North America. RCMA attained Full Member status in ANARC in 1977. For a list of the ANARC Member and Associate Member clubs send a self-addressed, stamped business size envelope with your request to the address below.

Write to Joe Barr, 1500 Bunbury Dr., Whittier, CA 90601, for the following:
Copy of ANARC Club List — Sent 25¢ and an SASE (business size)
Sample Copy of ANARC Newsletter — Send 60¢ and an SASE (business size)
Annual Subscription to ANARC Newsletter — $7.50 for residents of U.S., Canada, and Mexico; $10 Overseas (Airmail)

ANARC 1987 Convention to be held in July 16,17,18,& 19, 1987 at the Novotel Hotes in Mississauaga, Ontario, Canada. Mississaguga is a city of a quarter million right next door to Metropolian Toronto. The hotel is close to expressways, the Toronto Airport, and City bus services.

The banquet speaker will be past RCMA federal editor Bob Grove, of Grove Enterprises and "Monitoring Times". Theme of the convention will be: "Communications, Yesterday, Today, and Tommorow."

Make plans to attend now. (ANARC 1988 will be held in July 15,16,17, in Huntington Beach, California, USA.)

MINNESOTA DX CLUB December 12, Friday, 7:00 PM Meeting at the home of Martin Croze, 6017 Drew Avenue South, Edina, MN. For information call Martin Croze, (612) 922-1139.

MINNESOTA DX CLUB, January 9, 1987, 7:00 PM Hennepin County Government Center, 300 South 6th St., Minneapolis, MN(downtown). For details call MDXC/ANARC Representative Tom Gavars, (612) 544-2433.

AMERICAN SHORTWAVE LISTNERS CLUB (ASWLC) January 3, 1987 Meeting 10 AM to 3 PM at Club Headquarters, 16182 Ballard Lane, Huntington Beach, CA. Visitors are always welcome. For details call (714) 846-1685.

SOUTHERN CALIFORNIA DXERS February 20, 1987 10 AM to 3 PM at Village View School, 5361 Sesson Drive, Huntington Beach.

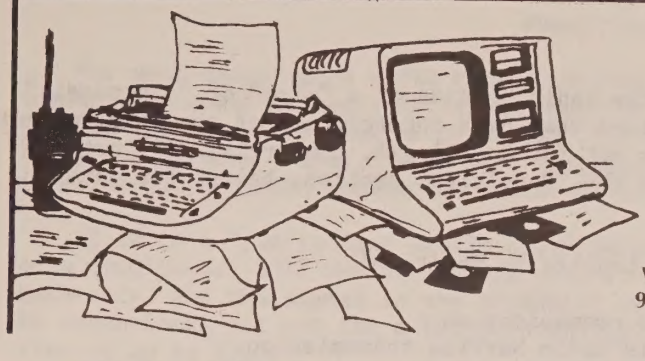
SOUTHERN CALIFORNIA DXERS (SCADS) has been elected as an ANARC Associate Club. Next scheduled meeting is February 20th (see above). Membership is open to all DXers. Fee is $4.00 per year. Contact Don R. Schmidt, Director, 3809 Rose Ave, Long Beach, CA 90807-4334.

ANARC COMPUTER INFORMATION COMMITTEE has a new address: 401 East Walnut, Greenfield, IL 62044. By sending them a SASE you may obtain a list of programs available. Be sure to include your type of computer.

UNIVERSAL SHORTWAVE RADIO, 1280 Aida Drive, Reynoldsburg, OH 43068 is now compiling their next edition to 'DXers Directory". To be included in this new edition, send the following information about yourself: Name, address, phone(optional), listening interests, any ANARC club membership, local radio clubs. The listing is free. For more information send a SASE to the above address.

RAY BRIEM SHOW//ABC TALKRADIO//3rd Annual "DX SPECIAL" Saturday January 10, 1986 -- 0806 UTC. (12 Midnight Pacific Standard Time) A five hour radio show with notables from the DX World. The program will be heard nationally on WABC/770; WPRO/630; WTKN/970; WERC/960; WJBO/1150; WKIS/740; KPRC/950; KRNN/930; KTAR/620; KABC/790; KFBK/1530; KXL/750; & KGU/760. (Note on some stations may have a varing program time). You can talk to in-studio guests Paul Swearingen, Stewart MacKenzie, Bob Grove, Dr Bruce Elving, Tom Kneitel, George Jacobs, just dial 1-213-879-8255 and let the phone ring. It will be answered just before your turn to go on the air.

CENTURY PRINT SHOP, 6059 Essex Street, Riverside, CA 92504-1599 is taking Per-publication orders for the 1987 WORLD RADIO TV HANDBOOK at $17.00, in the U.S.A only. (Specify P.O. Book rate or UPS delivery.) Add $1.02 sales tax for CA delivery. For first class mail add $2.00. For more information call (717)- 687-5910. Make checks payable to Century Print Shop. (deadline for this offer is 20 January 1987)



From The CAPTAIN'S DESK

William Mauldin, RCMA General Editor
961 Azalea Street, Boca Raton, FL 33432

ASSOCIATION OF NORTH AMERICAN RADIO CLUBS

Robert Horvitz
Government Affairs Liaison

The following two news releases by Bob Horvitz, ANARC Government Affairs Liason and RCMA member, are printed in place of Bill Mauldin's usual column.

10 October 1986

Preliminary Analysis of the Electronic Communications Privacy Act

The Electronic Communications Privacy Act of 1986 (ECPA) passed both Houses of Congress at the start of October. The radio provisions of the ECPA go into effect 90 days after it is signed by the President - that is, sometime in mid-January, 1987. The final draft of the bill is printed in the October 1st issue of the Congressional Record, starting on page S-14441. Here is a preliminary analysis of the new law as it affects radio monitoring.

(Note: The Senate Judiciary Committee's report interpreting the ECPA has not yet been released. Without that report, our analysis cannot be complete or definitive.)

* *

What the ECPA Does

The ECPA amends US Code Title 18, Chapter 119, the federal law governing the interception of "wire" and "oral" communications, to protect a new legal category, "electronic communication." It sets new rules for electronic surveillance by law enforcement agencies, and for investigative access to electronic mail and computer files. It also increases criminal penalties for malicious interference with satellite transmissions.

"Electronic communication" is defined as "any transfer of signs, signals, writing, images, sounds, data, or intelligence of any nature transmitted in whole or in part by a wire, radio, electromagnetic, photoelectronic or photooptical system that affects interstate or foreign commerce, but does not include--

(A) the radio portion of a cordless telephone communication...;
(B) any wire or oral communication;
(C) any communication made through a tone-only paging device; or
(D) any communication from a tracking device..."

Radio and wire transmissions are thus merged in this new term. However, the new law also retains and adapts the earlier legal definition of "wire communication" as a category separate from "electronic communication." "Wire communication" now means voice telephony, regardless of whether transmission is by wire or radio. The term "oral communication" is clarified to exclude voice transmissions by wire, radio or other electronic means. In other words, non-voice communications by wire are considered "electronic" communications, as are communications by radio which do not involve telephone transmission.

Preliminary Analysis of the ECPA

Unauthorized interception of the radio portion of a "wire" or "electronic" communication carries lesser penalties than does interception of the wire segment of the same communication - if it's not for an illegal, commercial or "tortious" [lawsuit-susceptible] purpose. See the "Penalties" section, below, for details.

What May Legally be Monitored

* Any marine or aeronautical radio communication
* Any Amateur, CB or General Mobile Radio Service transmission
* Any communication transmitted "for the use of the general public, or that relates to ships, aircraft, vehicles, or persons in distress"
* The radio portion of cordless telephone communications linking the handset and base unit
* Tone-only paging signals
* Certain types of audio subcarriers (to be specified in Senate report)
* Signals causing harmful interference to "any lawfully operating station or consumer electronic equipment, to the extent necessary to identify the source of such interference"
* Satellite transmissions of "network feeds," some audio subcarriers, and cable programming covered by Section 705(b) of the Communications Act
* Any governmental, law enforcement, civil defense, private land mobile, or public safety (including police and fire) radio communications system which is "readily accessible to the general public"
* Any other electronic communication made through a system "configured so that such electronic communication is readily accessible to the general public"

In most cases, radio communications defined as NOT "readily accessible" will be illegal to monitor, unless one of the above exemptions applies. "Readily accessible to the general public" is defined to mean that the communication is NOT:

- scrambled or encrypted;
- "transmitted using modulation techniques whose essential parameters have been withheld from the public with the intention of preserving the privacy of such communication" [the House report says this means spread-spectrum signals];
- "carried on a subcarrier or other signal subsidiary to a radio transmission;"
- "transmitted over a communication system provided by a common carrier" (except for tone-only paging signals);
- transmitted on frequencies allocated under FCC rules part 25 [communication-relay satellites]; part 74(D) [remote broadcast pick-up stations]; part 74(E) [aural broadcast auxiliaries, including studio-to-transmitter links]; part 74(F) [television broadcast auxiliaries & studio-to-transmitter links]; or part 94 [private fixed microwave].

As mentioned above, some exceptions override the general ban on reception of allegedly "inaccessible" signals. For example, the radio emissions of a cordless phone may be monitored, even though it relays common carrier communications. Similarly, marine and aeronautical radiotelephone signals are legal to monitor. (In contrast, phone-patches in the 800 MHz Specialized Mobile Radio service are legally protected, since the phrase "readily accessible" qualifies the exception for private land mobile radio, which includes SMRs.)

The forthcoming Senate report on the ECPA is expected to identify types of audio subcarriers that may legally be monitored, even though the new law declares all subcarriers to be "inaccessible." (Taken literally, that makes listening to FM stereo broadcasts, and the audio portion of TV broadcasts, federal crimes!)

Although broadcast remote pick-up (RPU) stations authorized under FCC part 74(D) are declared to be "inaccessible," they operate near 26, 153, 161, 166, 170, 450 and 455 MHz, usually with city-wide audio coverage. Used by broadcasters to coordinate the coverage of events outside the studio, RPUs can be received on most scanners. Indeed they are favorites among scanner owners because of their newsgathering role. As a result of an amendment introduced by Sen. Paul Simon at ANARC's request, the ECPA creates no criminal liability in monitoring RPUs when the monitoring is for no bad purpose (but see next section for civil liabilities).

Penalties

For most unencrypted radio communications protected under the ECPA, intentional unauthorized interception carries a criminal penalty of up to one year in jail and/or a fine of up to $100,000 - for a first offense which is not for a bad purpose - i.e., "not for a tortious or illegal purpose or for purposes of direct or indirect commercial advantage or private commercial gain."

If it is a "public land mobile radio service" communication (i.e., a cellular or a traditional IMTS radiotelephone call), or any type of paging except for tone-only, and the signal is not scrambled or encypted, and if the interception is intentional but not for a bad purpose, the penalty for a first offense is a fine of up to $500.

If the communication is scrambled or encrypted, or the interception is for a bad purpose or is a second or subsequent offense, the penalty is up to 5 years in jail and/or a fine of up to $100,000.

Intentional interception of an unencrypted part 74(D) transmission, without bad purpose, carries no criminal penalties. However, the federal government may seek a court injunction against a specific interceptor, and assess civil damages of up to $500. Any violation of the injunction carries with it a mandatory $500 civil fine, liability for any actual damage suffered by the plaintiff, or statutory damages of up to $1000.

Any criminal violation of the ECPA exposes the interceptor to civil liabilities (risk of a lawsuit). For any violation other than those described in the last paragraph, courts may reclaim any profits made from or damages caused by the interception, or assess statutory damages of $100 for each day of violation, or $10,000, whichever is greater.

Intentional vs. Inadvertant

The ECPA makes it a federal crime to intentionally intercept, disclose or use electronic communications protected under this Act. Even "endeavors to intercept" are a crime [section 2511(1)(a)]. That is, merely trying to intercept a protected communication is a crime, even if you don't succeed! Under the ECPA, acting on the intention is sufficient to constitute a crime.

Obviously, the exact legal meaning of "intentional" - and the kind of proof required to establish intent in court - are crucial. The House report says intentional means that acquiring the contents of an electronic communication is one's "conscious objective." According to the House report, requiring intent "precludes the application of civil or criminal liability for acts of inadvertant interception." [emphasis added] However, the report adds, "The term 'intentional' does not require that the act was committed for a particular purpose or motive." [emphasis added]

The ECPA thus does not criminalize an act so much as a "state of mind" or attitude relating to the act. Interception achieved by accident is not a crime. Unfortunately, this distinction is rather murky in the case of recreational scanning with a multiband radio receiver. Does casual browsing constitute intentional or inadvertant interception? what about automatic band searches? and what constitutes proof of intent - possession of a frequency list? We hope for answers to some of these questions in the Senate report. In any event, requiring proof of intent should limit a hobbyist's chances of being successfully prosecuted for recreational monitoring that causes no detectable harm to those whose radio communications were tuned in.

Surreptitious Interception Devices

An easy way to enforce the ECPA would be to criminalize ownership of devices capable of receiving protected communications. In fact, the ECPA amends sections 2512 and 2513 of US Code Title 18 in an attempt to do just that. When the new law goes into effect, it will become illegal to manufacture, assemble, possess, sell, advertise or send through the mail any electronic device whose design "renders it primarily useful for the purpose of the surreptitious interception of wire, oral, or electronic communications."

Due to imprecise drafting, the ECPA's ban on "surreptitious interception devices" does not distinguish between electronic communications that are legal to

receive and those that are illegal. Depending on how the word "surreptitious" is defined, a AM-FM broadcast receiver concealed in a stuffed animal could qualify as an illegal device; similarly, a microcomputer with a modem and built-in code-breaking software might constitute an illegal device, depending on how the word "primarily" is defined. We can only hope that the Senate report defines surreptitious interception devices in a way that is both clear and narrow. We also hope for insight into the new legal status of subcarrier tuners, voice inverters (simple descramblers), teletext readers, radioteletype terminals with bit-code translation features, and programmable scanners.

7 November 1986

Analysis of Senate Report 99-541

President Reagan signed the Electronic Communications Privacy Act on 21 October 1986. Now Public Law 99-508, its radio provisions take effect on 19 January 1987. It is too soon to tell how some parts of the Act will be interpreted and applied. However, Senate Report 99-541 contains the drafting committee's explanation of the ECPA. Since the Senate version of the legislation prevailed over the House version, we expect the Senate report to carry more weight than the House Report in court decisions and enforcement policy. But both are part of the legislative record, so while the focus here is on the Senate report, some relevant differences between the House and Senate reports are noted, too.

Single copies of Senate Report 99-541 (87 pp.), which includes the full text of the new law, are available at no cost from the Senate Document Room, Hart Senate Office Building, Room B-04, Washington, DC 20510 (phone 202-224-7860). If ordering by mail, send $1 to cover postage & handling. Additional copies are $2 each.

Because the report is interpretive, the language used in it is sometimes indirect, sometimes deliberately ambiguous. In some cases, what is not said is as important as what is said. For that reason, the following should be understood as an interpretation of an interpretation. Others may derive different clues from the same passages. Only issues of direct concern to radio monitors (and to a lesser extent, satellite dish owners) are discussed.

* *

Surreptitious Interception Devices

The ECPA makes it illegal to manufacture, assemble, sell, advertise, mail or own any device "primarily useful for the surreptitious interception of electronic communications," and that includes kits. But neither the Senate nor the House report state what types of devices fall into this category. This leaves the matter to prosecutors and courts to decide.

The lack of Congressional guidance creates a risk that a device which many people believe is legal could, in one case, be found by a court to be illegal, thus exposing the manufacturer, seller, and other owners of the same or a similar device, to potential criminal liability. For example, if someone arrested for drug dealing had a scanner "crystalled" for channels used by the Drug Enforcement Administration, one charge brought against him might be possession of a surreptitious interception device. (It does not matter that law enforcement channels are legal to monitor. The ECPA doesn't limit the term "surreptitious interception" to electronic communications that are illegal to receive.) Should the dealer be convicted of possession of a surreptitious interception device, that would open the door to prosecution of anyone else owning the same type of radio who uses it in a similar way.

The silver lining in this cloud is that the lack of a clear statement by Congress of what is to be considered a "surreptitious interception device" makes it unlikely that limits on the capabilities of radio receivers and other electronic devices could be imposed through federal regulation anytime soon. Instead, we're probably entering a period of uncertainty in which judges (who are generally not technically knowledgable) will decide what devices are illegal on the basis of the cases presented. But the labeling

proposal discussed in the next section offers some comforting clues that the category of devices made illegal by the ECPA is meant to be quite narrow.

Labels

When the ECPA was introduced, some of its sponsors looked to a ban on scanners as one way to enforce it. "Maybe you can stop the sale of these devices or force them to make them such that they cannot be used to get this particular area of the spectrum where cellular calls are coming in," Rep. Carlos Moorhead mused at the first House hearing. This approach was embodied in House Report 99-647, concerning H.R.4952:

> "Part of the impetus to clarify the illegality of interception of cellular communications has been provided by the advertisement of scanning receivers...specifically promoting eavesdropping on conversations transmitted over cellular systems... The Committee finds this development troubling, and expects that the future design and manufacture of scanners will take into account the privacy protections accorded cellular telephony in this legislation."

One of the most striking differences between the House and Senate reports on the ECPA is the Senate report's approach to the cellular/scanner conflict. Rather than concur with the House in seeking to limit the "future design and manufacture of scanners," the Senate report says that

> "The [Federal Communications] Commission might consider the feasibility of requiring that cellular telephones be labeled to indicate that cellular calls are radio-based communications, and as such, portions of the communication may be intercepted by available scanning equipment and of requiring that scanning equipment be labeled to indicate that the intentional interception of protected communications could be a Federal criminal violation."

The phrase "available scanning equipment" in this sentence seems to indicate that the ECPA is not supposed to make such equipment unavailable. There would be no need for warning labels on scanners that are not capable of tuning in protected communications.

Another problem which the Senate report proposes to tackle through labeling is reception of unscrambled satellite video transmissions. It may not be apparent to a TVRO owner whether, for example, a panel discussion of medical malpractice cases, carried on a leased transponder, is or is not intended for public reception. To eliminate uncertainty, the Senate report goes on to suggest that the FCC "might consider the feasibility of requiring those who transmit private satellite video communications to periodically transmit a crawl across the bottom of the screen indicating that such communications are protected."

Civil Sanctions for Satellite and RPU Monitoring

In our "Preliminary Analysis" of the ECPA we didn't describe in detail the civil penalties that apply to monitoring broadcast remote pick-up (RPU) stations, and to home viewing of unscrambled "private" satellite video transmissions - because they're rather complicated. The important point, though, is that no criminal penalties apply to reception of either of these transmission types when it's not for an illegal or tortious purpose or for commercial advantage or gain. As for civil sanctions, the Senate report says:

> "...if the violation is a first offense...the government may sue for appropriate injunctive relief [i.e., may seek a court injunction ordering an individual to stop his monitoring.] ...if the violation is a second or subsequent offense...he shall be subject to a mandatory $500 civil fine... the court [shall] impose a civil fine of $500 or more for each violation of such an injunction. The term 'violation' in this context refers to each viewing of a private video communication and to each reception of a part 74 D radio communication.
>
> " ...if the violator has not previously been enjoined in a government action [of this type] and has not been found liable in a prior civil action, the court shall assess the greater of the

sum of the plaintiff's actual damages or statutory damages of $50 to $500... if the violator is a second offender...the court shall assess the greater of the sum of the plaintiff's actual damages or statutory damages of $100 to $1000. Third and subsequent offenders are subject to the bill's full civil penalties [i.e., actual damages and forfeiture of any profit resulting from the monitoring, or statutory damages of the greater of $100 a day or $10,000]."

Miscellaneous Comments Relevant to Monitoring

Senate report: "[Scanner owners expressed concern] that in the course of scanning radio frequencies in order to receive public communications, one could inadvertantly tune through a protected communication like a cellular telephone call. [Use of the term 'intentional' in the new law] makes clear that the inadvertant interception of a protected communication is not unlawful under this Act...

"Scanning enthusiasts have argued to the Committee that the mere monitoring of cellular telephone calls should not be illegal. That argument ignores three important realities. First, Congress, in passing the 1968 wiretap law already made willful monitoring of such telephone calls illegal when at least part of the conversation is carried by wire. Second, unlike many signals which are more commonly scanned, the design of the cellular telephone system makes the intentional monitoring of specific calls more difficult because they are handed off among cells. The Committee is not convinced that these arguments overcome the need for protection of privacy interests."

"Radio communications are considered readily accessible to the general public unless they fit into one of five categories [defined as not readily accessible]." [That means there is no empirical "test" of ready accessibility; the law considers only the communication's type and intended use.]

"Some groups which engage in testing were concerned that the picking up of the contents of a communication incidental to those tests might be considered a crime... In addition, both the EPA and the FCC have pointed out that Federal agencies and state and local agovernment are currently addressing the problem of potentially excessive public exposure to radio frequency (RF) radiation emitted by various kinds of equipment. Testing solely to determine the source of, or to measure, RF emissions in order to comply with or to establish or enforce applicable federal, state or local standards limiting human exposure to RF radiation is not prohibited by the [ECPA]."

"...the lawful activities of Federal agencies intended to intercept encrypted or other official communications for communications security purposes [are exempt from the ECPA]... In addition, the interception, by authorized Federal agencies, of radio communications between foreign powers or agents as defined by tghe Foreign Intelligence Surveillance Act of 1978, and the accessing of electronic communications systems used exclusively by a foreign power are exempted from coverage of this act..."*

House report: "Nothing in the bill affects the use of radar detectors, because the radar transmissions are readily accessible to the general public. Nothing in the bill, howver, affects the authority of states to regulate the use of radar detectors."

"The use of, as an example, a multiband radio receiver by a licensed amateur should not subject the amateur to criminal prosecution or harassment in any fashion. Amateur have legitimate reason to monitor frequencies outside the amateur bands... In short, there is legitimate reason for amateurs to have equipment which tunes beyond amateur bands." [Note: ANARC protested this passage as suggesting that an Amateur license - which is a license to transmit - confers special reception privileges on Amateurs that not enjoyed by the general public. This passage was not included in the Senate report.]

*The House report includes a 6-page memorandum outlining the National Security Agency's current "Guidelines for the Conduct of Communications Security Monitoring Activities." Interesting reading...

AIRCRAFT

Send private, commerical, firefighting and law enforcement aircraft frequencies of interest in the 108-136 MHz range and frequencies in other bands above 30 MHz associated with airports and aircraft plus questions, articles and tips related to aircraft monitoring to:

Darrel Charest, 1913F Oak Creek Lane, Bedford, TX 76022

As the excitement of the Holiday Season descends on us, I find it increasingly difficult to program myself into the writing mode. Our membership, however, seems to have anticipated the problem and offered some thoughts for this month's column.

Along with a listing of aircraft channels for the Louisiana area, Arnaud Milner, LA-045, would like to see more information in the Newsletter on the Civil Air Patrol, airport security and business' associated with airport operations. As a member/pilot in the CAP some fifteen years ago I will relate what I can remember of these experiences and look for some help to fill in the details from current CAP members. Airport security and business' related to airport operations are outside my realm and must come from RCMA members who are better qualified to write on these subjects. They are appropriate to our column and your comments are welcome and will be printed.

Before I get into the duties and responsibilities of the CAP, it's only fair to say that I was a member for only two months. But weekly meetings and a substantial amount of flying gave me some insight into the organization. My reasons for becoming a member were not those that would guarantee a long mutually beneficial relationship. The CAP in Salt Lake City had acquired a beautiful T-34 and the only means for me to fly the machine was to become part of the organization. For those who may not know, the T-34 was a primary trainer used by both the Air Force and Navy. It was very similar to the Beechcraft Debonair of today with constant speed propeller, retractable gear and fully aerobatic. It was a joy to fly, and took me back to my younger days. As luck would have it, two weeks after I had been checked out in the T-34 our chief instructor landed the aircraft GEAR UP and the machine was a total loss. The aircraft could not be replaced and shortly after that I was selected for an assignment in Asia where I served as an air traffic control advisor to the Air Force.

Now on to the CAP. As most of you know the CAP is a civilian organization but receives some of its equipment, funding and direction from the U. S. Air Force. Its primary responsibility is to provide search and rescue service for civil pilots. It is an all volunteer group of unpaid individuals who spend a great deal of their liesure time in training or actually conducting searches. Capt. Mike McDonald, AZ-043, a member of the California CAP sent us some material that appeared in the October '86 issue of the RCMA Newsletter. His letter discussed the use of Search and Rescue Satellite Aided Tracking not only for aircraft but also for ships and boats. The Calif. Wing of the CAP is the largest and busiest having tracked and silenced more than 250 emergency beacons in 1985. All but 6, however, were false alarms. The CAP not only provides air search, but may also do so from boats or all terrain vehicles. Once a year, the USAF evaluates the search and rescue capability of the CAP auxillaries. For the past several years the Calif. Wing has received Outstanding ratings. In addition to providing a valuable public service, the CAP also involves teenagers interested in aviation. Their involvement leads to experience in flying, communications, emergency relief and to some extent operations in a semi-military environment.

From Florida we received two newspaper clippings from the Ft Lauderdale News related to stories about deceptive and obscene radio transmissions on air traffic control frequencies. Since these also were given coverage on national TV, we'll skip the details here. Although these incidents resulted in but minor harassment to the pilots and controllers, they could be devastating. For all the good things in our society today, it is sad to realize that a few sick individuals can disrupt our lives by making a few deceptive radio transmissions or a telephone bomb threat. In my opinion, I've always felt a large share of the blame must be placed on the news media for the hype given to these events. Yet as we look back, fewer incidents such as these are occurring today and may indicate better days ahead.

Scott Miller, WI-039, wrote for information on aircraft channels in his area, just outside Madison. Scott asked for air carrier company frequencies including gate and ramp channels. We mailed him two pages of ARINC listings in addition to information observed earlier in Police Call where some ramp/gate channels are in the 460mhz band. In my experience, I've found Police Call to be comprehensive in public service information and in other areas as well. Skimming through the 460mhz listing several years ago I noticed a number of the channels for airline use. To my pleasant surprise there they were loud and clear, as soon as I programmed them into my scanner. We'll hope Scott has the same results.

Before we get on to our frequency listings, I would like to add some thoughts for those of you who may be relatively new to monitoring as a hobby. From my experience I found it was a relatively long time before I was placed on a mailing list for scanner/radio equipment suppliers. As a result, I was paying nearly full retail prices for radio/scanning receivers. It came as something of a shock to see items I had bought at retail to be discounted forty to fifty percent. One example was the Regency ACT-720 which I purchased for $350. About a year later I saw the identical unit offered in a pilot supply catelog for $199. I immediately contacted the Dallas/Ft Worth Regency distributor to inquire about the wholesale price. Would you believe $260? The message here is, if you're interested in a piece of equipment check some of the catelog suppliers before you make a local purchase and you might save a few dollars.

Here are the frequencies for Louisiana from Arnaud Milner:

Lakefront Airport

Tower	119.9/125.65	Ground	121.7
ATIS	124.9	Clearance Del.	127.4
FSS	122.2/122.6	Arr/Dep	120.6

Moisant (New Orleans Intnl)

Tower	119.5	Ground	121.9
ATIS	126.7	Clearance Del.	127.2
Arrival	120.6	arr/dep	123.85
Arr/Dep	125.5	arr/dep	118.1
Security	453.55	Security	475.15
	462.625		484.225
ARINC	460.65	ARINC	482.25
	460.725		482.325
Trans Gulf (Seaplane)	151.865	American	460.775
			482.375
Braniff	460.7	Continental	461.25
	482.3		482.85
Delta	460.825	Eastern	460.15
	482.425		482.35
Lacsa	460.65	Republic	460.85
	482.25		482.45
Tan Sahsa	460.85	Western	460.7
	482.475		482.3

Houma Airport

Tower	125.3	Ground	121.8

Morgan City and Thibodaux Airports

CTAF	122.8

Civil Air Patrol

148.15	148.4
148.23	149.925
143.75	

Last month we included frequencies for the Denver, Colorado and St. Louis, Missouri areas provided by Major Willard Hardman, DC-11. Bill has given us an excellent list and here are the channels he has logged for Southern and Central California. More of his frequencies will appear next month.

AVIATION FREQUENCIES
CALIFORNIA

LOS ANGELES AIR ROUTE TRAFFIC CONTROL CENTER
Palmdale, CA

Bakersfield	127.1	Low
Bakersfeild	133.05	High
Baldwin Heights	132.85	Low
Barstow	135.575	High
Fresno	132.8	Low
Palmdale	125.8	Low
Palmdale	127.1	Low
Palmdale	128.2	Low
Palmdale	132.85	Low
Palmdale	132.6	Low
Palmdale	132.5	Low
Riverside	126.35	Low
Saddle Peak	125.8	Low
Saddle Peak	132.6	Low

OAKLAND AIR ROUTE TRAFFIC CONTROL CENTER

Angel's Camp	120.2	High
Half Moon Bay	125.45	Low
Half Moon Bay	126.85	Low
Half Moon Bay	127.45	Low
Half Moon Bay	132.65	High/Mid
Half Moon Bay	133.7	Low
Half Moon Bay	134.375	Low
Half Moon Bay	134.55	High
Oakland	125.85	Low
Oakland	134.975	High
Sacramento	124.2	Low
Sacramento	126.85	Low
Sacramento	127.8	Low
Sacramento	127.95	Low
Sacramento	132.8	High
Sacramento	132.95	High
Sacramento	134.45	High
	132.05	High

OAKLAND FLIGHT SERVICE CENTER

Oakland Flight Watch	122.0

LOS ANGELES AREA

Burbank-Glendale-Pasadena

Burbank is located on the Lockheed Aircraft Corporation Facility and is still owned by them. The runways are 15-33 and 7-25. Because of topography and adjacent air traffic, 7 & 15 are most commonly used.

Air Traffic Control

ATIS	113.1
ATIS	134.5
Clearance Delivery	118.0
Ground Control	123.9
Tower	118.7
Approach/Depart	120.4
Approach/Depart	124.6

Approach/Depart.....135.05
Approach/Depart.....134.2

Facility Operations
Operations.....151.805
Security.....158.295

Aircraft Operations
Air Cal.....129.35
Air Cal.....130.15
Air Cal (Ground Agents).....460.65
Alaska Air.....131.2
American
America West
Continental (Grnd Agents).....460.825
Jet America
Lockheed Corp.....123.25
Martin Aviation
Pacific Southwest (PSA)
Royal West
TWA
United.....129.5
United (Ground Agents).....460.725
Western
U/I Commuter.....131.75

Hawthorne
Aircraft Operations
Northrop Corp.....123.3

Los Angeles International
Air Traffic Control
Approach.....124.5
Approach.....124.9
Depart.....125.2

Aircraft Operations
Air Cal.....129.35
Air Cal.....130.15
AIRINC (International).....129.9
American.....129.325
Frontier.....129.3
PSA.....131.15
Pan American.....129.7
Southwest Air.....129.25
United.....129.4
Western.....130.1

Ontario International
Air Traffic Control
Approach/Depart.....125.5
Approach/Depart.....135.4

Aircraft Operations
Western.....130.1

Van Nuys
Air Traffic Control
ATIS.....118.45
Clearance Delivery.....126.6
Ground Control.....121.7
Heliport.....119.0
Tower.....119.3
Tower.....120.2

Whiteman
Air Traffic Control
CTAF/UNICOM.....122.8
Heliport.....123.025

SACRAMENTO

Sacramento
Air Traffic Control
Approach/Depart.....124.5
Approach/Depart.....125.25

Aircraft Operations
Frontier.....129.3

SAN FRANCISCO

AIRINC Communications Center
.....130.2
.....130.425
.....129.45

Oakland
Air Traffic Control
Approach/Depart.....135.4

San Francisco International
Air Traffic Control
ATIS.....113.7
Ground Control.....121.8
Tower.....120.5
Bay Area Approach.....132.55
Bay Area Approach.....134.5
Bay Area Approach.....135.65
Bay Area Depart.....120.9
Bay Area Depart.....135.1

AMATEUR RADIO COMMUNICATIONS

This column is for reporting on amateur radio activities that may be of interest to scanner listeners. Send reports and questions concerning repeater nets, civil emergency systems, packet ratio, amateur TV, etc., to:

Terry Stader, MI-062, 8 Christopher Road, Westford, MA 01886

Welcome to 1987..... How many of you have made your New Year's resolution to become hams? Or even better how many of you hams have made a resolution to upgrade? I did, I have procrastenated long enough. All I have to do is set down and practice the code! I can receive and generate perfect code with the C64, but they won't let me take it to the exams.... Samuel Morse is probably turning in his grave!

Last month we had the 1986 index so I didn't a chance to provide some of the input I have gotten recently. I do want to thank those of you who do send information. I want to apologize to Joe Velasquez CA-SO-006 who sent me some material and an SASE but I didn't get anything back to him..... Joe you should be getting several things by the time you read this. Sorry for the delay.

Now on to the letters.....

From Dave Fuller, KB5ASI, LA-031 some frequency information for the Bogalusa area. Dave has just passed his Novice exam.... Congratulations Dave! He reports several local 2 meter repeaters he has monitored:

Bogalusa	WA5CWE	147.03	
Franklinton	WA5CWE	146.64	
Hammond	unk.	147.00	Thanks Dave

From Bill Philipson, W6PRI, CASC-029 some input on MARS(Military Affiliated Radio Services). Bill has sent some information on exercise "NIGHT TANGO". The information is reprinted from an AF MAMRS Newsletter in Jim's area under the column title of "Base Support News". It reads as follows:

> "NIGHT TANGO": An old Brando movie? How about the latest workout record by Jane Fonda? Truthfully, there are some USAF MARS members who have not heard of it. Probabaly missed the original broadcast and were afraid to ask what it meant when seen in other broadcasts. We decided to use this space to repeat that one broadcast, with updates.
>
> MARS BROADCAST NUMBER 20, DATED 30 MAY 84. ITEM 44: The National Communications System (NCS) is conducting a series of exercises entitled "Exercise Night Tango" to evaluate the potential utility of using volunteer radio communications systems "Amateur Radio, Civil Air Patrol and MARS". These exercises will determine if the various system operators can be used as alternate communications resources during periods of national crisis to establish connectively and pass critical message traffic between senior government officials. These exercises involve locations both with established communications regions and beyond normal regional boudries.
>
> Each of the military services MARS Directors and the Director of Operations, HQ CAP, will provide assistance for planning and conducting Night Tango exercises for their respective organizations. Specific areas of evaluations for these tests includes: message accuracy and handling times, exercise message formats, network routing procedures, interfacing between originating officials and MARS networks, data collection and message audit trails, methods of multiple routing critical messages, message relay procedures and system reliability.
>
> Exercise assumptions are that all networks will use their respective frequency plans, participating locations would survive the simulated disaster, local telephones would remain operational and long haul comm would be disrupted (only local telephone calls will be placed during the conducyt of these exercises. The participants in a specific exercise will be the NCS representatives located at predesignated sites. MARS member participation will be coordinated by HQ AFCC/SIMO through the appropraite RCM proir to each exercise.
>
> Each exercise will consist of the transmission and reception of a series of exercise messages related to the support of the national security leadership requirements. The TO/FROM/INFO and text of each message will be passed by the NCS representative to his volunteer operator who will determine the DTG. Each volunteer is free to modify the heading to meet his/her own system message formatting procedures. The interface between the NCS representative and his volunteer operator will be accomplished by telephone. Night Tango messages may carry up to immediate precedence. USAF MARS members are authorized to operate on any USAF MARS frequency to pass Night Tango traffic. Net control stations will cooperate with and assist the speedy flow of this traffic through the system. NCS analysis reports will be passed on to the membership. END

Thanks for this input Bill. I will get a chance in future columns to talk about additiojnal MARS related items. Those of you who would like, should send me their information.

Got a letter from one of our northern neighbors, Sid Elliot, CANA-109. Sid sent on a flyer on the VE7EXPO held at the 1986 World Exposition in Vancouver, B.C. Canada from May 2- October 13, 1986. This event was put on by The Canadaian Amateur Radio Federation. It looks like they had quite a station set up there. The flyer won't reprint, so I have condensed it down somewhat. The stations call was actually VE7EXPO with the station capable of operating from 160 meters through 1.2Ghz.

EXPO AREA AMATEUR RADIO PUBLIC SERVICE AND CLUB NETS:

NET	PERIOD	TIME	FREQ.
B.C.F.M.C. Assoc.	Thurs.	2100PDT	146.94 Mhz
B.C. Public Service Net	Daily	1830PDT	3729 Khz
B.C. Northern Net	Wed/Sun	1900PDT	3775 Khz
B.C. Emergency Net (cw)	Daily	1700PDT	3650 Khz

Burnbary ARC	Monday	2000PDT	145.35 Mhz
Fraser Valley DX Club	Sunday	2000PDT	147.28 Mhz
Maple Ridge ARC	Sunday	2000PDT	146.80 Mhz
Morning Show	Mon.-Fri.	0730PDT	147.26 Mhz
Retired Gents Net	Daily	1630PDT	3780 Khz
Richmond ARC	Tuesday	1900PDT	147.14 Mhz
Marine Net (DDD Int'l)	Daily	0400UTC	14.115 Mhz
Marine Net (Vancr Islnd)	Daily	1730PDT	146.68 Mhz
Marine Net (Gulf Georgia)	Daily	1700PDT	147.32 Mhz
Senior Citizens Net	Daily	0905PDT	147.10 Mhz
Technical Net	Thursday	2105PDT	147.06 Mhz
Trans Canada Net	Sat/Sun	1800UTC	14.140 Mhz
Vancouver ARC	Sunday	2100PDT	28.650 Mhz
Victoria AR Rptr.Assoc.	Monday	1900PDT	146.84 Mhz
White Cane Net	Thursday	2030PDT	3765 Khz
YL Get Together	Wednesday	1400PDT	146.84 Mhz
YL Dogwood Net	Thursday	1600PDT	3753 Khz

CANADIAN NATIONAL CALLING FREQUENCIES:

BAND	FREQUENCY	BAND	FREQUENCY
80 Meters	3758 Khz	40 Meters	7165 Khz
20 Meters	14.140 Mhz	15 Meters	21.260 Mhz
10 Meters	28.400 Mhz	2 Meters	146.52 Mhz (simplex)

EXPO AREA 2 METER REPEATERS Normally accessible with H/T

LOCATION	Mhz	CALL	NOTE	SERVICE & INFORMATION
Burnbary	145.35	VE7RBY	-6/0	General & Club Info
Bellingham, WA	146.74	K7SKY	-6/0	Border & Marine QSO's
Richmond	147.14	VE7RMD	+6/0	General & Club Info
Vancouver	145.17	VE7ESR	-6/0	General & Club Info
Vancouver	146.94	VE7RPT	-6/V/MP	Emgncy/Asst/Short QSO VE7EXPO "MONITOR"
Vancouver	147.02	VE7RAG	+6/0	Ragchew for 146.94
Vancouver	147.06	VE7FVR	+6/0/OP/L	Auto-patch & Link Hub
Vancouver	147.12	VE7VAN	+6/0	General Use
Vancouver	147.26	VE7WRS	+6/(3 cxr bursts)	General Use
Vancouver	147.30	VE7RDX	+6/0	DX Club Info

Accessible depending upon power and QTH

Chilliwack	147.00	VE7ELK	-6/0	General & Club Info
Chilliwack	147.10	VE7RCK	+6/0	General & Club Info
Coquitlam	146.60	VE7RCH	-6/0	General Use
Gulf Islands	146.68	VE7RVC	-6/0/L	Link Marine & General
Gulf Islands	147.32	VE7RSI	+6/0	General & Marine Use
Maple Ridge	146.80	VE7RMR	-6/0/OP	AP-up *789/down#
Maple Ridge	147.28	VE7DXC	+6/0	Genereal & DX Club
Nanaimo	145.43	VE7RNA	-6/0/MP/L	Mid Van Is. Link
Nanaimo	146.94	VE7ISC	-6/0	General & Club Info
Seattle, WA	146.88	K7PF	-6/0	General Use
Surrey	147.04	VE7RSE	+6/0	General & Club Info
Victoria	145.41	VE7RSR	-6/0	General Use
Victoria	146.84	VE7VIC	-6/0/MP	General Use

NOTE LEGEND

-6 = offset down 600 Khz
+6 = offset up 600 Khz
MP = member autopatch
OA = open autopatch
O = carrier operated
V = voice operated
L = link repeater

UHF REPEATERS

Vancouver	224.300/222.700	VE7RPT(monitered by VE7EXPO)
Vancouver	443.525/448.525	VE7RPT(monitered by VE7EXPO)
Vancouver	443.800/448.800	VE7UHF
Vancouver	444.000/449.000	VE7URG

VE7FVR- VANCOUVER & PROVINCIAL NETWORKS

VE7FVR's signal covers the greater Vancouver and Fraser Valley areas. VE7FVR is the main hub of a duplex trunk network to BC's southern interior and to major areas of Vancouver Island. The network is available from the locations listed below and system users group will accomadate you upon request.

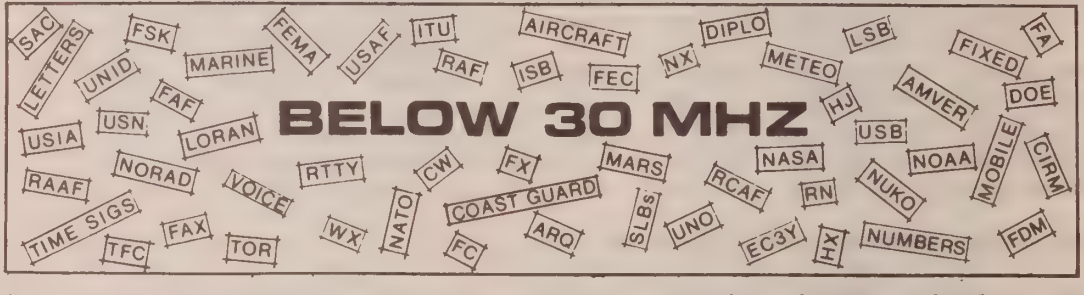
STATION	Mhz	OFFSET	LOCATION
VE7FVR	147.06	+600	Vancouver
VE7MPR	147.06	+600	Manning Prov. Park (Hwy 3)
VE7RAC	147.24	+600	Port Alberni
VE7RLO	146.96	-600	Kamloops
VE7RNA	145.43	-600	Nanaimo
VE7RNC	146.68	-600	Newcastle Ridge
VE7RNI	146.94	-600	Albert Bay/Port Hardy
VE7RVC	146.68	-600	Saturna (Gulf Islands)
VE7RYY	145.31	-600	Chilliwack

Lots of good information here..... Thanks Sid!!!

Last but not least, I got a card from **Mike Lussier ID-001** with Reno, Nevada information. He reports that 147.30 is linked to 224.46 N7RH repeater. It has an open auto-patch. He tried to get into it but batteries went dead while on a fishing trip north of Lake Tahoe. He also reports the 224.70 Sacremento repeater has an open auto-patch.

Thats all for this month. 73's

de KA8SCP



This column is for HF AM, CW, SSB, RTTY and FAX reception reports, note, articles, and questions related to HF utilities. Services covered in this column include aeronautical, coastal/marine, weather, government, military and 'spy' stations — essentially everything except broadcasting, CB and amateur radio.

Send reports to: Geoff Halligey, 85 Southwood Road, Cottingham, England, HU16 5AJ.

MSF, RUGBY, ENGLAND

It has been announced that the three HF Time Signal frequencies of 2.5, 5.0 and 10.0 MHz are to be withdrawn from service shortly, simply because no one is now using them to any extent.

The 60 kHz MSF signal (which provides the time, date and all the rest of it) will remain in operation.

COMMSTA U.S.COAST GUARD

Monitoring the USCG on 5696 kHz has brought a lot of interest to James (PA-119) recently. Listening to the COMMSTAS at Boston, Portsmouth, Miami New Orleans and Chicago for a few hours on several days in Sept/Oct have provided two pages of interesting logs.

James uses a Realistic DX-200 with an MFJ-1020 active antenna, plus sometimes a 'long wire' strung around the shack.

THE SPY

He just keeps going on and on, 11,510.0 kHz, with his side-kick on 11128.0, at 0845 (now that daylight saving time has ended) with no traffic but a daily QRU call. Must be frustrating !

ALEXANDERSON H.F. ALTERNATOR

An early method of producing CW was by the Alexanderson HF alternator - in the days even before WW I.

On September 25th this year, 1300 - 1400 UTC, the Swedish Telecom Radio authority set one of these old alternators going to celebrate the opening of their National Historical Radio Conference from Varberg in Sweden. A message was radiated on 17.2 kHz and was received in Cottingham, England.

This message stated that the motor speed was 711.4 rpm and the gear box ratio of 2.973 gave a motor speed of 2115 rpm.

This speed, and the 976 (yes, 976) poles of the alternator produced the 17.2 kHz frequency. The transmitted note was clear and sharp, equal to that obtained from conventional tubes.

THIS MONTH'S LOG

4020.5	USB	...	U.S.Army, Europe with roll call, 2-ltr c/s	0705
4099.0	CW	PPP	Channel Marker	0723
4110.8	CW	SXH42	unknown, Greece	2229
6770.0	CW	RCB	unknown Russian Naval	1124
6850.0	CW	RIT	unknown Russian Naval	1537
9024.0	CW	BT9P	tfc with FYN45 + Wx from RAF stations	1024
11000.0	CW	RIW	Khiva Naval, USSR	0900
11000.0	USB	...	YL calling 'Pinoccio', USAF	1030
11124.0	USB	...	Numbers in GG	0959
11132.0	CW	RMP	Rostov Naval, USSR	0914
11134.0	USB	...	Numbers in GG	1640
14445.0	USB	PIWA107	clg PIWA102. USA voices	1421
14446.0	CW	USO	USSR clg D3M74, Luanda, Angola	1425
18351.0	CW	KWS78	Athens, Greece, U.S.Embassy	1129
18504.0	CW	RIW	Khiva Naval, USSR	1400
18696.0	CW	RIW	Khiva Naval, USSR	1135

and three late ones:

10021.0	USB	...	Madrid, Spain - Iberia house frequency	1605
10608.0	CW	RWMS	clg RIW, Khiva	0905
10860.0	USB	...	Russian b'cast feeder	0945

The Russians are prominent in the above September/October logs; they all come belting in here. Most of their calls are to ships with identifiable 4-letter callsigns starting with 'U', for example RIW was calling UNCQ, the 'Guissar' and UJGC, the 'Novosokolniki' on the 18504.0 frequency.

But they also use a number of 4-letter calls starting with 'R' like RMCJ; maybe these are warships not listed in the ITU 'List of Call Signs'.

Bye for now, and a Happy and Prosperous New Year to all.

Geoff

BUSINESS, ETC.

This column is for reporting frequency and radio system information for the following varied services: business, forest products, petroleum industry, special industrial, manufacturers, news media (behind-the-scenes radio, TV & newspaper), motion picture industry, security (private patrol, detective agencies, campus security & police, amusement park & stadium security, shopping center & mall security, plant/business/hotel security, etc.) General Mobile Radio Service (GMRS), mobile phone/RCC & paging, trucking firms, bus lines, taxi cabs, tow trucks, utility companies (private & municipal water, power, electric, gas, telephone, etc.), and all school & college related frequencies. Send information and questions pertaining to the radio services covered in this column to:

Send Business monitoring information East of the Mississippi to:

Brandt Niemuth, P.O. Box 541, Rosemont, IL 60016

Merry Xmas and "Happy New Year" to one and all. We hope that everyone was blessed with every communication wish that was made. On to this month's contributions: First from long heard from Jim Sokol, now of St Joe, Mi, comes the following:

35.22	WXS 245	Pro Phone Communications	Muskegon MI
35.22	KRM 951	Mobile Radio Telephone	Kalamazoo MI
35.22	KSV 987	Dial-A-Page Inc	South Bend IN
35.58	KSC 645	Radio Relay Corp	Chicago

35.58	KWU 384	Better Beepers of Fort Wayne	IN
43.22	KSC 644	Rogers Radio Communications	Chicago
43.22	KDS 449	Rochester Telephone	Rochester IN
43.22	KQZ 774	J M C Communications	Lansing MI
43.22	WXR 998	David H Smith	Milwaukee
43.22	KQK 771	Bennett Communications	Flint MI
43.58	KSC 373	Multi-Point Communications	Milwaukee
43.58	KQC 884	Radio Relay Corp	Detroit
,43.58	WXR 914	Digital Paging Systems	Essexville MI
43.58	WXR 931	Digital Paging Systems	Millet MI
43.58	KWU 245	Digital Paging Systems	Toledo OH
43.58	KQZ 754	Telephone Answering	Grand Rapids MI
43.68	WQX 982	Ravenswood Hospital	Chicago
43.68	KWH 687	Northwestern Memorial Hosp	Chicago
152.0075	KAY 365	Northwestern Memorial Hosp	Chicago
152.24	KSV 987	Dial-A-Page Inc	South Bend IN
152.24	KRM 951	Mobile Radio Telephone	S Haven MI
152.84	KNKB825	Indiana Bell	South Bend IN
152.84	KNKB826	Indiana Bell	La Porte IN
152.84	KNKB594	T-Com Inc	Berrien Springs MI
152.84	KRM 495	General Telephone	Muskegan MI
157.74	KTS 887	St Joseph Medical Center	South Bend IN
157.74	KLQ 372	Upjohn Co	Kalamazoo MI
158.10	KNKC639	Century Teleview	Benton MI
158.1	KWU 209	United Telespectrum	South Bend IN
158.1	KTS 203	Illinois Bell Telephone	Chicago
158.7	KTS 201	South Shore Radio Telephone	Chicago
158.7	KWA 673	Harbor Communications Inc	St Joseph
163.25	KVQ 534	Lee Memorial Hospital	Dowagiac MI
163.25	KNBU617	Lakeview Community Hosp	Paw Paw MI
163.25	KYH 767	St Anthony's Hospital	Michigan City IN
151.655	KZQ 913	All Time Pest Control	Benton Harbor MI
151.685	KEJ 907	Wightman & Associates	St Joseph MI
152.15	KLF 591	Harbor Communications Inc	Benton Harbor MI
451.5	KGN 725	Indiana Bell Telephone	South Bend IN
462.675	KAD2250	Raymond E Vincent	Anderson IN
464.025	KNDB309	Orchards Mall	Benton Harbor MI
		(Security & Maintenance)	

From Steve Bates (IA-056) of Marion, Ia comes:

152.33	Twin City Cab
153.47	Corn Belt Electric
158.25	Corn Belt Electric
153.56	Illinois Power
153.65	Illinois Power
451.075	Northern Illinois Gas
451.2	Northern Illinois Gas
453.9	Illinois State University

Send Business monitoring information West of the Mississippi to:
Cliff Polkinghorn, 14310 Acacia St., San Leandro, CA 94579

NO COLUMN THIS MONTH

COMMUNICATIONS PROFILE

Joe M. Lewis, 750 Scotland St., Dunedin, FL 33528

This column is for special projects that explain various systems in detail. Frequencies and radio codes of not only municipal agencies and certain federal government agencies may be listed, but also large businesses and corporations. The contribution must be lengthy enough that publishing it in one of the regular columns would not be possible. If you are inclined to submit a report as the one below appears, please follow No. 8 in the inside front cover of the Newsletter.

WELCOME TO THE JANUARY 1987 COLUMN, IT IS HARD TO BELIEVE THAT I HAVE BEEN AN EDITOR FOR ONE YEAR. I AM SORRY ABOUT NOT HAVING A DECEMBER COLUMN, BUT I WAS ILL AT THE TIME IT WAS TO BE TYPED AND SENT. THIS IS LATE OCTOBER, AND IT FEELS FUNNY . . HOPING EVERYBODY HAD HAPPY HOLIDAYS. SINCE I HAVE NOT RECEIVED ANY MORE FOR MY COLUMN, THIS MAYBE MY LAST COLUMN, AND NOW ON TO THE INDEX.

1985, BY CLIFF

JAN	NO COLUMN
FEB	NO COLUMN
MARCH	NO COLUMN
APRIL	C.D.F. PART I
MAY	LOS ANGELES AIRPORT
JUNE	C.D.F. PART II
JULY	C.D.F. PART III
AUGUST	NO COLUMN
SEPT.	FLORIDA
OCT.	MONTGOMERY COUNTY, MD.
NOV.	NO COLUMN
DEC.	NO COLUMN

1985 BY SUBJECT

C.D.F. PART I	APRIL
C.D.F. PART II	JUNE
C.D.F. PART III	JULY
FLORIDA	SEPT.
LAX	MAY
MONTGOMERY CO. MD	OCT.

1986 BY JOE M. LEWIS

JAN.	PRINCE GEORGES COUNTY, MD. FD
FEB.	PRINCE GEORGES COUNTY PD AND GOV.
MARCH	WASHINGTON, D.C.
APRIL	MONTGOMERY COUNTY MD PART I
MAY	MONTGOMERY COUNTY PART II
JUNE	BALTIMORE CITY & COUNTY
JULY	AMERICAN RED CROSS
AUGUST	NO COLUMN
SEPT.	CHP
OCT.	SUFFOLK COUNTY NY FD.
NOV.	WEST KANSAS EMS
DEC.	NO COLUMN

1986 BY SUBJECT

AMERICAN RED CROSS	JULY
BALTIMORE, MD	JUNE
CHP	SEPT.
MONT. CO. MD. I	APRIL.
MONT. CO. MD. II	MAY
PRINCE GEORGES CO.	FEB.
PRINCE GEORGES FD	JAN.
SUFFOLK CO. NY FD	OCT
WEST KANSAS EMS	NOV.

PLEASE SEND ME A PROFILE OF YOUR AREA, SO I CAN CONTINUE THE COLUMN.

contact info wanted

This column has two purposes: to help members *contact* each other, and to help members obtain *information* directly from one another on various subjects related to 2-way communications monitoring. If you desire to converse, meet, or correspond with other members by telephone, letter, or cassette tape in a certain geographic area or with members who have similar listening interest, *this* is the perfect place for you to make known your interests. Remember — those who respond will do directly, so be sure to provide your phone number, the best time to be called, or your address. Write to:

Scott Mattson, 2820 Bridge Ave., Point Pleasant, NJ 08742

INFO WANTED: This member would like information on "non-sensitive" UHF Aero/Military and National Guard frequencies in use in the Baltimore/Washington Metropolitan Area. Am willing to exchange police, fire, and similar info for same area.
KEVIN JOHN (MD-120) 31 Walden Cherry Ct., Baltimore, MD 21207 (301) 744-8204

INFO WANTED: RCMA member who is a TV newsman expecting to move soon to Raleigh, NC. Would appreciate any info on important frequencies across the state. Especially interested in the EASTERN half of the state. Would also appreciate meeting other monitoring buffs when I arrive.
TOM HIRSCH (KS-015) 846 N. Oliver # 2, Wichita, KS 67208

COMMODORE 64 INFO WANTED: I would like information from anyone using a Commodore 64 computer data base for frequency listings and storage.
ROD DAVIS (OR-046) P.O. Box 46, Canby, OR 97013

INFO WANTED: I would like in-depth frequency info on Baltimore City & County, MD; Anne Arundel County, MD; Prince George's County, MD; Howard County, MD; and Maryland State Police.
LEE COLLIER (MD-121) 4710 Lance Ct., Rockville, MD 20853

INFO WANTED: This member requests info on a program for C/64 or C/128 computer which will organize frequency lists. Interested in program with option of deleting "sensitive" frequencies. Will reimburse for postage/expenses or replace disc with program already copied.
RON M. HUGHES (TN-010) 4357 Barr Ave., Memphis, TN 38111-7832 (901) 725-0341

CANADA

Send Canadian frequency information, radio system details and other information relating to Canadian monitor radio listening and questions to:

Rob Berezowski, 310-4045 Rae St, Regina, Saskatchewan, Canada S4S 6Y8

Happy New Year everyone, and welcome to the January 87 Canada column. My only resolution for 1987 is to promptly reply to all your letters. I am quite far behind, but I am making progress. So I have to say once again to be patient. (If I do stick to my resolution, I won't have to beg for your forgiveness any more.) There's a lot for the column this month, so lets get started.

Our first letter comes from Larry (CANA-106). He sent in some frequencies and information for the Hamilton region.

HAMILTON-WENTWORTH REGIONAL POLICE

Channel 1	Mountain	142.485
2	Downtown	142.635
3	East	142.845
4	Special	143.085

Larry also passed on his observations regarding usage for each of the above. Channel 1 includes the part of Hamilton on the mountain (a better term is escarpment), and Ancaster, Waterdown, and the rural areas of the region. Channel 2 is the downtown area from the western city limit of Hamilton proper to somewhere around Sanford Avenue. Channel 3 covers the area of Hamilton east of Sanford Avenue, including Kenilworth, Stoney Creek, and Satellite City. Channel 4 is used for car-to-car conversations, special events, and detective work.

HAMILTON-WENTWORTH REGIONAL POLICE 10 CODES

The Hamilton-Wentworth Regional Police use the standard APCO 10 Code, with the following additions and exceptions:

10-10 Request to go to Common Channel
(10-11 through 10-15 are not used)
10-16 Pick up prisoner at ____
(10-17 not used)
10-18 Complete assignment quickly
10-19 Return to your station
(10-22 through 10-25 are not used)
10-26 Detaining subject, Expedite
(10-27 not used)
10-30 Improper use of radio
(10-31, 10-32 are not used)
10-33 Emergency
(10-34 not used)
10-35 Major Crime Alert
10-36 Correct Time
10-38 Investigation Alert
10-45 Death or Fatality
10-50 Accident (F,PI,PD)
10-51 Tow Truck required
10-52 Ambulance required
10-60 Subject is negative
10-61 Subject has record, not wanted
10-62 Subject possibly wanted
10-63 Subject positive hit
10-64 Proceed with Caution
10-65 Assist re: 10-64 Individual
10-66 Subject in Observation Category
10-67 Subject in Parolee Category
10-68 Subject in Charged Category
10-78 Need Assistance
10-90 Bank Alarm
10-92 Person in custody

10-93 Blockade, set up roadblock
10-100 Bomb Threat

HAMILTON-WENTWORTH REGIONAL FIRE

Hamilton City Dispatch 154.830
Regional Dispatch 154.250

Fire District Numbers:

20 Dundas	60 Binbrook	80 Greensville
30 Ancaster	70 Stoney Creek	85 Freelton
40 Waterdown	75 Winona	90 Lynden
50 Mount Hope	77 Stoney Creek	95 Rockton

Ont Min of Health Paramedics 413.8875 / 418.8875
Hamilton Mobile Telephone 152.600, 152.810, 152.840
GO TRANSIT Buses (between Hamilton & Toronto) 410.5125 / 415.5125in
(ed note-other frequencies to try: Toronto 410.0625 / 415.0625in
Stouffville 410.3375 / 415.3375in
Brampton 411.1625 / 416.1625in
Oshawa 411.1875 / 416.1875in
Toronto 411.5625 / 416.5625in
The GO Trains are on: 161.295)
Hamilton Street Railway (buses) supervisors 411.4375 / 416.4375in
(Larry says that he has only heard the supervisors, and he guesses that there are other frequencies. This channel is also sometimes used by Canada Coach, the interurban part of the Hamilton Street Railway.)
Jackson Square Security 452.9625 / 457.9625in
(The Jackson Square is a large complex in downtown Hamilton, including a large shopping mall, hotel, arena, library, and farmers' market.)

Thanks very much for the letter, Larry. I hope we'll hear from you again in the near future, perhaps with some information on those unconfirmed frequencies?

Our next letter comes from Dave (CANA-027) in Victoria. Dave sends us the following frequencies that he listens to in his area.

RCMP	Vancouver Island (south repeater)	140.310
	Duncan	140.370
	Colwood Local	140.610
	Colwood Local Dispatch	141.090
	TAC 1 Colwood	141.180
	TAC channel	141.150
Saanich and Central Saanich Police		155.760
Central Saanich Police Ch 2		155.670
Victoria Police	Primary channel	155.550
" "	Secondary channel	155.490
Duncan Fire Dept (includes area Fire Depts)		154.130
Langford Fire Dept		155.175
Mill Bay, Shawnigan Lake Fire Depts		151.445
Oak Bay, Saanich Fire Depts		155.880
" " " " "		156.030
Victoria Fire Dept		155.445
BC Dept of Highways	Vancouver Island	143.295
Oak Bay Public Works		169.110
Inland Security (Duncan)		451.2625

Dave also indicates that his favourite frequency is Victoria Police 155.550. Thanks very much for the information, Dave.

Next I have a whole bunch of letters from Harry (CANA-074), with information on a wide variety of topics. I guess the best way to tackle it is to start with the first letter in chronological order. Harry reports that the Edmonton Police Dept have acquired some new radios. These new radios are digital PLL synthesized units, and channels 11 to 15 (used by the detectives) use some new frequencies:

Edmonton Police Dept	Ch 7	462.975	/ 462.975
	8 Traffic	462.650	/ 462.650
	9 (not yet in use)	462.650	/ 467.6625in
	10 Detectives	462.850	/ 462.850
	11 (not yet in use)	462.850	/ 467.8625in
	12 Detectives	461.850	/ 461.850
	13 Detectives	461.850	/ 466.8625in

	14 Detectives	461.925 / 461.925
	15 (not yet in use)	461.925 / 466.9375in
Edmonton Police Dept	UHF Fixed Link System	412.5625
	" " " "	412.5875
	" " " "	412.6125
	" " " "	412.6625
	" " " "	412.6875

(These 412 MHz frequencies are one-way fixed links from various remote radio sites to the main radio site containing the transmitter for 461.850(R). Located at each remote radio site is a "satellite receiver" on 466.8625, and the audio output from this receiver is sent via the 412 MHz relay to a "voter" located at the main site. The voter compares the signal-to-noise ratio of each receiver (usually several receivers from different sites will simultaneously pick up the mobile's transmission) and select the best signal. This signal is then transmitted on the repeater output of 461.850.

This network of satellite receivers and the voter allows this UHF channel to be used city-wide by the detectives. The problem with coverage of UHF systems is not with the base transmitter, but with the mobile radio. It is much more difficult to receive signals from the mobile (even using a 200 foot tower) than it is to receive the base transmitter. It is for this reason that satellite receivers and voters are needed to achieve city-wide coverage. A very similiar system is in use by the Calgary Police Service for their Strike Force channel (Ch 13 463.175 / 468.1875in). Mostly DVP is used on this channel, so DVP is all that is usually heard on the 412 MHz frequencies.)

Harry reports that a new 800 MHz cellular telephone system operated by Edmonton Telephones is now in service. The system uses frequencies in the 880 MHz band (sub-band B, as described in the June 86 Canada column). Harry also passed on a news release that appeared on the Canada News-Wire regarding the cellular telephone service. Northern Telecom has sold a DMS-MTX/C digital mobile telephone switch worth $1.4 million to Edmonton Telephones. The switch has been installed in the Bonnie Doon exchange, and will initially provide service for 2,500 customers through four cell sites around Edmonton. The network is capable of incremental expansion to 30 cell sites and 100,000 customers.

The new system will provide such features as call waiting, call forwarding, three-way calling, and call transfer. The DMS-MTX/C is based on the same architecture as the Northern DMS-100 family of Central (Telephone) Office exchanges. There are more than 20 other Northern Telecom cellular mobile systems sold or on order in North America, including systems in Toronto, Ottawa, Montreal, Denver, Phoenix, Seattle, Washington, Minneapolis, Miami, and throughout New York State and New Jersey.

Harry passed along some information on the Parkland Ambulance Authority. The PAA provides paramedic service to Stony Plain, a town about 20 km west of Edmonton. The PAA are dispatched on the Edmonton Ambulance Authority dispatch frequency (EAA Ch 4 413.9125 / 418.9125in) through a simulcast repeater on 412.5375 / 418.5375in located at the Smithfield radio site near Stony Plain. 412.5375 simulcasts everything on 413.9125. For Paramedic-to-Hospital communications, 413.6875 / 418.6875in is used, with a repeater tower located in Stony Plain. The PAA have four ambulances, unit numbers 321 to 324.

The West Edmonton Mall have changed their frequencies, including the addition of some repeaters. This change has corresponded to the opening of the latest phase of expansion. New additions to the mall include an indoor water park with giant wave pool, water slides, and indoor tanning. The Fantasyland Hotel has also opened. This hotel truly lives up to its name. Each room has a different theme, and there are some unusual ones. For example, there are the Roman rooms, where the entire room is decorated in ancient Roman style. Also, did you ever want to sleep in the back of a pickup truck? (The March 86 Canada column has more information on the WEM) The new frequencies are as follows:

West Edmonton Mall Security (500 units)	462.6125 / 467.6125in
West Edmonton Mall Maintenance	463.0875 / 468.0875in
West Edmonton Mall Fantasyland & Submarine Ops	458.6625 / 458.6625

West Edmonton Village Security (400 units)	463.5875 / 468.5875in
Westmount Shoppers Park Security (300 units)	463.5875 / 468.5875in
West Edmonton Mall Construction	451.150 / 456.1625in

Fantasyland Maintenance uses the 462.6125 repeater. The Fantasyland Hotel uses 700 unit numbers and operates on 462.6125(R). The West Edmonton Mall, West Edmonton Village, and Westmount Shoppers Park (all owned by Triple 5 Corporation) Security staff all use the Edmonton City Police 10 Code (see November 85 Canada column), with the following additions:

WEST EDMONTON MALL (TRIPLE 5 CORP.) 10 CODE

Edmonton City Police 10 Code plus:
- 10-17 Noise Complaint
- 10-24 Edmonton City Police
- 10-25 Lost Child
- 10-200 Parking Lot Patrol ?

Effective May 1, 1986, the town of Barrhead, Alta will have RCMP protection. Formerly the town relied on its own police force, until town council voted for a 6 man RCMP detachment. The RCMP policing was supposed to begin Jan 1, but a labor dispute with the old town police officers delayed the opening of the RCMP detachment. Since the old police force was disbanded, RCMP from neighboring Westlock would respond to emergency calls. The old police officers were eventually given a cash settlement. The Barrhead RCMP detachment now consists of 1 Sargeant and 5 Constables. They have three cars (3B71, 3B72, 3B73), and they operate on C repeater (155.700 / 154.950in).

Harry also sent in the following list of new frequencies:

Telsco Security Systems (Edmonton)	451.3625 / 456.3625in
IKEA (West Edmonton Mall store) pager	454.175
Sears Canada Inc (Edmonton)	462.500 / 462.500
United Cabs (Edmonton)	462.500 / 462.500
Shell Canada	451.3125 / 456.3125in
" "	451.7875 / 456.7875in
Sturgeon Cabs Ltd (St. Albert)	152.155 / 152.155

Harry also sent in a copy of the Alberta RCMP 10 Codes. It is similiar to the RCMP Codes used in other provinces, but each province has a few differences.

ALBERTA RCMP 10 CODE

The Alberta RCMP use the standard APCO code, with the following additions and exceptions:

- 10-30 Danger/Caution V - Violence
  - " " E - Escape
  - " " M - Mental
  - " " S - Suicidal
  - " " F - Firearms
- 10-35 Murder
- 10-36 Armed/Barricaded Person(s)
- 10-37 Rape
- 10-38 Fatality
- 10-39 Hostage
- 10-40 Possible Hit on Subject
- 10-41 Confirmed Hit on Subject
- 10-42 Subject in Observation Category
- 10-43 Subject in Parolee Category
- 10-44 Subject in Charged Category
- 10-45 Subject in Elopee Category
- 10-46 Subject in Prohibited Category F - Firearms
  - " " " " L - Liquor
  - " " " " D - Driving
- 10-47 to 10-59 Reserved
- 10-60 Police Hater ?
- 10-61 Station Calling Identify
- 10-62 Unauthorized Listener
- 10-63 Dispatch Tow Truck
- 10-64 Dispatch Ambulance
- 10-65 Mental Patient Escort to ____
- 10-66 Remain in Service

10-67 Anything for me
10-68 Breathalyzer Operator Required
10-69 Checking Person/Vehicle
10-70 Transmission Violates Radio Regulations
10-71 Aircraft Disaster
10-72 Bomb Threat
10-73 Hijacking
10-74 to 10-79 Reserved
10-80 Subject in Probation Category
10-81 CNI Record - Violence
10-82 " " - Robbery
10-83 " " - Offensive Weapon
10-84 " " - Break and Enter
10-85 " " - Auto Theft
10-86 " " - Theft
10-87 " " - Drugs
10-88 " " - Fraud
10-89 " " - Sex
10-90 " " - Other Criminal Code
10-91 " " - Other Federal Statutes
10-92 " " - Other Statutes
10-93 " " - VIP Surveillance
10-94 " " - CISA Subject
10-95 " " - Arson
10-96 " " - Fail to Appear
10-97 " " - No Convictions

That's all I have room for this month. Thanks for all the information and your letters, Harry. I'll have the rest of Harry's contributions next month. Until next month, dress warm, stoke up that fire, and take heart; it's only 6 months until summer!

FCC TOPICS

George DuBois, Editor

FCC news and information of interest relating to two-way communications. Send comments and questions to:
George DuBois, 10048 NE Campaign, Portland, OR 97220

The FCC's Contracting Officer awarded a contract this last summer to a third party contractor to provide direct electronic access to selected computerized FCC data bases. These computer data bases include license data for the 32 Private Land Mobile Radio services plus the Part 95 General Mobile Radio Service. The contract was awarded to Spectrum Management Systems (SMS), the primary contractor, and American Management Systems, Inc., which provides computer hardware and technical support. SMS is a wholly-owned subsidiary of the Special Industrial Radio Service Association, the frequency coordinator for the Special Industrial Radio Service.

Cost of SMS's service is 3.9 cents per second of computer utilization (from log-on to log-off). There is no set-up fee and no minimum monthly usage charge. At each log-off usage time and cost will be displayed. The system may be accessed from 8 am to 8 pm Eastern time, either by direct dial telephone or via GTE Telenet. SMS's address is 1700 N. Moore St., Suite 910, Rosslyn, Va. 22209. Upon completing the application form SMS will send you a user guide and your password (which is changed every few months).

The service is accessible through asynchronous ASCII terminals using 300 to 1200 baud. There are two main activities, license inquiries and Datatrieve. License inquiries include those by callsign, by frequency and state and by longitude and latitude. In November additional features were to be added, including searches by frequency and specified location.

Datatrieve is a custom data base management software program that is more versatile. It permits sequential access of any field (entry) or combination of fields in a license file. It can permit user-defined retrievals of fields, such as retrieval by licensee or service, as well as allowing formatting of the requested information.

Daily update transaction computer tapes from the FCC will maintain a current and accurate system, as accurate as the FCC's own data base.

There's not much else I can tell you since I don't know much about all this computer crap. RCMA wanted a computer column so bad, but it has

since gone down the big dumper. It would have been the place to elaborate on all the information in the users guide.

All I can tell about the system is that it appears to be relatively slow. And at 3.9 cents a second (which translates to $2.34 a minute) you can see what a few five minute sessions a month can run you. By the same token, the FCC Master Frequency File on microfiche now costs over $400 from NTIS. For $400 you can buy over seven days worth of continuous time on SMS's system. You figure it out. At this point I have no information on whether the microfiche will continue to be made. It was the Commissions original intent to abolish the fiche, an expensive means of making the license information available to the public.

The computer printout is pretty straightforward. In the license inquiry mode, using retrieval by callsign, you are further prompted to select either administrative or techcnical data. The technical data looks pretty much like the microfiche, licensee name, radio service, area of operation, antenna height, type and number of units and so forth.

To me, the advantage to all this is that it would be current. No waiting until the next set of fiche to come out to find out who that new user on a frequency you just found is. All in all, it's pretty neat. If you have a computer, a modem, lots of money and the need for immediate access to FCC license information, this is the way to go.

FEDERAL GOV'T
and
MILITARY

Send all Federal Government and Military frequencies (including those of military aircraft), radio system details, and related questions to:

Dennis Biagioli, 607 W. Pleasant Ave. Villa Park, IL 60181

Sensitive frequencies will not be published. Coast Guard material must go to the VHF Marine editor.

And a very Happy New Year to all! The mailbag has been pretty empty of late. Must be everyone is too busy celebrating! Let's hope Santa brought you a new ribbon for your printer or typewriter and you'll send some goodies in, real soon!

ALAN HENNEY (MD-069) sends information regarding the FEMA (Federal Emergency Management System) "Channel-G Radio System" in use in the Washington, DC, listening area.

The Channel-G system is a VHF-FM radio system used as a backup to the Washington Area Warning System (WAWAS), area communications circuit or "Hotline". Since it is used strictly as a backup system, operational traffic is not normally passed. It is, however, tested once daily.

The activities having a Channel-G terminal are those with responsibility for, or possessing an emergency response capability. They include such facilities as Police, Fire, Military, State and Local Emergency Operations Centers (EOC's), etc. This system is provided all such facilities within the defined boundaries of the Washington Metropolitan Area, which includes nine (9) separate political jurisdictions.

While the Channel-G is not a secure or classified system, a composite listing of all subscribers with their station numbers/call signs is not considered in the public domain by FEMA. That being the case, such a list cannot be provided.

The duplex system used the frequencies of 167.975 and 173.185 MHz.

JOHN McCOLMAN (VA-091) sent along the following lists.

149.4250 Craney Island		Base Security	USN
148.4250 Dam Neck		Base Security	USN
173.4125 Fort Eustis		Base Fire Dept	UAR
407.4750 Fort Eustis		Military Police	UAR
163.5375 Fort Monroe		Post Fire Dept	UAR
165.0625 Fort Monroe	AAC730	Military Police	UAR

173.4875	Fort Monroe	Post Transportation	UAR
164.9625	Hampton	VA Center	UVA
163.4625	Langley AFB	Base Operations	UAF
163.4875	Langley AFB	Base Security	UAF
163.5125	Langley AFB	Base Police	UAF
163.5875	Langley AFB	Base Security	UAF
164.9750	Langley AFB	Central Security	UAF
165.0125	Langley AFB	Civil Engineers	UAF
165.1125	Langley AFB	Command Net/Phones	UAF
173.5875	Langley AFB	Base Fire Dept	UAF
138.9600	Little Creek NA	NAB Base Security	USN
149.0300	Little Creek NA	Master-At-Arms	USN
140.2250	NAS Oceana	Base Police	USN
171.1500	NASA Langley	Klate Holt Contracto	UNS
173.6125	NASA Langley	NASA Fire Dept	UNS
173.6625	NASA Langley	NASA Duty Officer	UNS
173.6875	NASA Langley	NASA Security	UNS
139.5750	NOB Norfolk	Base Fire Dept	USN
140.0750	NOB Norfolk	Naval Investigative	USN
140.1000	NOB Norfolk	Base Fire Dept	USN
140.6250	NOB Norfolk	Base Master At Arms	USN
141.9500	NOB Norfolk	Base Tugs	USN
142.0000	NOB Norfolk	Base Tugs	USN
142.0500	NOB Norfolk	Base Tugs	USN
142.5000	NOB Norfolk	CINCLANT Mobile Phon	USN
142.6250	NOB Norfolk	Base Operations	USN
142.6500	NOB Norfolk	Base Tugs	USN
143.4250	NOB Norfolk	Base Police	USN
143.6000	NOB Norfolk	Base Police	USN
143.6250	NOB Norfolk	Base Ambulances	USN
149.0250	NOB Norfolk	NOB Duty Officer	USN
140.2500	Norfolk NSY	Base Security	USN
140.7000	Norfolk NSY	Shipyard Fire	USN
140.8250	Norfolk NSY	Base Police	USN
165.2625	Portsmouth	USCG Security	UCG
34.8300	Virginia Beach KIE622	US Fish & Wildlife S	UFW
168.4250	Yorktown KID700	Colonial Parkway	UPS

National Parks, Forests, Seashores, Monuments, etc.
Virginia

Frequency Guide
(Frequency pairs denote repeaters. 1st frequency is repeater out)

National Seashore:

Assateague National Seashore.....170.050/169.400

National Historical Park:

Colonial National Historical Park.....168.425/169.125
Cumberland Gap National Historical Park.....

National Monument:

Booker T. Washington National Monument.....166.350
Harper's Ferry National Monument.....168.425

National Birthplace:

George Washington National Birthplace.....163.125

National Battlefield:

Appomatox Courthouse National Battlefield.....166.350
Fredricksburg/Spotsylvania National Battlefield..166.950/166.350

Manassas National Battlefield.....163.125
Richmond National Battlefield.....166.950/166.350

National Forest:

George Washington National Forest.....171.525/172.325
Thomas Jefferson National Forest.....171.575/172.250

National Forest Park:

Prince William National Forest Park.....168.475/169.175

National Park:

Shenandoah National Park.....166.900/166.300

National Wildlife Refuge:

Back Bay National Wildlife Refuge.....34.830
Chincoteague National Wildlife Refuge.....34.830
Fisherman Island National Wildlife Refuge..(no known facilities)
Great Dismal Swamp National Wildlife Refuge.....34.830
Mason Neck National Wildlife Refuge.....34.830
Nansemond National Wildlife Refuge.....(no known facilities)
Presque Isle National Wildlife Refuge.....34.830

CALL FOR MOST-LISTENED-TO FREQUENCIES

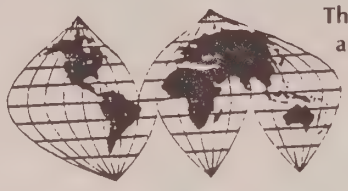
How about everyone sending their most listened to (non "sensitive") Federal government or military frequencies (or frequency) and we can compile quite a list. Hopefully it will be so long that it will take several months to print it all! Come on, nearly everybody has something in this category they hear. Put it in an envelope and send it along. Even if there is only one in your area that provides you enough action that you listen to it, then take part. Everybody has something they are THE authority on -- so how about sharing? Let's try to get these in by January 31, 1987 -- okay? Come on, please? This means you -- please consider this a personal invitation! Not a long list of everything in your area, just the ones you find interesting enough to monitor regularly!

Just two items: (1) If you wish to remain anonymous, that's okay -- but please at least tell me who you are in case I have questions. And (2) if you are sending someone else's list, at least give them credit. I would really advise against passing around any list that someone else gave you for your personal use. That's a great way to loose a good and friendly source.

That's January. We offer our thanks to Alan and John and hope others will take a moment to make at least one addition to our column in 1987. We are all waiting to hear from you!!

73-
Denny

INTERNATIONAL



This column is for reporting two-way communications frequencies above 30 MHz, radio system details, monitoring experiences, and any other information relating to monitoring in countries other than the United States and Canada. Send to:

Rickey Stein, 456 Barrymore Place, North Brunswick, NJ 08902

I had planned to present additional frequency listings for the Republic of Ireland at this time, however, some additional work has to be done on those files. I have some other information which I am sure will be of interest to the membership so let's continue with those listings now.

If you remember, I had mentioned that I was in touch with a Dutch monitor who had a contact in Germany. This monitor was able to secure a list of West German frequencies and was then kind enough to forward them so that I could share them with you.

****

GERMAN FREQUENCIES

NUMBER\LETTER CODE

01-02-03	Pf (Polizeifunk)= Police (different branches)
10	Security Services (such as Fire, Ambulance, Red Cross
25	Marifoon
28	Aeronautical- company operations
29	Aeronautical- civil
30	Aeronautical- military
DRK	Deutshesrotes Kreuz (German Red Cross)
FLORIAN	Fire Brigade
GEB	Electricity Company
Pf 'xxx'	Police, 'xxx'= call-code name

(some of the codes listed below have not been identified, and as such are not yet listed above)

****

AACHEN

39.900	30	Tower
78.210	16	RWE
85.115	05	BGS 'Argus'
85.335	10	Johannes
85.535	01	Pf 'Robert'
86.475	10	Florian
86.575	05	BGS 'Argus'
86.595	10	Florian
87.035	10	LSHD 'Kater'
122.500	29	Merzbrueck Info
122.875	29	Merzbrueck Tower/Info
138.750	30	Tower
153.410	26	DBP Autotelefoon
153.450	26	DBP Autotelefoon
153.530	26	DBP Autotelefoon
153.630	26	DBP Autotelefoon
153.650	26	DBP Autotelefoon
154.150	16	Gasbedrijf
165.250	01	Pf 'Robert' Porto

169.950	05	BGS 'Argus'
171.170	13	Stadtwerke
171.330	13	Stadtwerke
173.300	01	Pf 'Trente' Porto
279.950	30	Merzbreuck Tower
420.610	16	Gasbedrijf

ALSDORF

146.970	16	Elektriciteits Centrale
149.290	13	Rangeerterrein Mijn 'Anna'
168.370	07	Bewaking Wasserwerke

BERGHEIM

85.655	02	PF 'Willy'
152.750	23	Kolenmijn Fortuna

BIELEFELD

118.350	29	Info

BOCHUM

85.455	01	Pf 'Irma'
86.435	10	Florian

BONN

85.635	01	Pf 'Uni'
86.415	10	Florian

BONN-HANGELAR

119.250	30	Info
122.500	29	Info

BONN-HARDTHOHE

122.100	30	Heliport
257.800	30	Heliport
259.050	30	Heliport

BREMEN

86.035	01	Pf 'Roland'
120.350	29	ACC
121.350	29	ACC
124.650	29	ACC
124.800	29	ACC
125.350	29	ACC
135.700	29	FIS South

BRUGGEN

79.600	32	RAF Ground Service
122.100	30	Tower
123.300	30	GCA
130.500	30	GCA
139.850	30	RAF
173.440	02	Pf 'Victoria' Porto

234.650	30	GCA
257.800	30	Tower
264.400	30	Approach
280.550	30	Approach
284.800	30	Tower
298.000	30	Clutch Radar
315.950	30	Tower
354.200	30	Approach Control
361.900	30	Ground Service
362.300	30	Approach Control
366.750	30	Tower
379.900	30	Ground Control
385.400	30	Info

DORTMUND

84.475	03	Pf 'Magda'
84.575	03	Pf 'Magda'
85.575	01	Pf 'Union'
118.950	29	Wickede Info

DUISBURG

86.095	01	Pf 'Egon'

DUREN

84.335	03	Pf 'Edwin'
85.335	10	DRK
85.815	02	Pf 'Karol'
86.155	02	Pf 'Karol'
86.255	02	Pf 'Karol'
86.355	10	Florian
86.715	10	LSHD
87.075	10	LSHD
154.370	16	EVU
168.960	02	PF 'Puma' Porto

DUSSELDORF

84.235	03	Pf 'Helga'
85.275	10	DRK
85.675	01	Pf 'Gregor'
86.415	10	Florian
86.715	10	Florian
113.600	29	ATIS
115.150	29	DUS-Beacon
118.300	29	Tower
118.650	29	FIS/CVFR
118.750	29	ACC
119.300	29	Tower
119.400	29	Approach
119.700	30	Tower-Clutch Radar
120.050	29	ACC
120.250	29	Director
120.900	29	FIS
121.900	29	Ground Control
123.200	29	FIS
126.150	29	ACC
128.550	29	ACC
128.650	29	ACC
128.850	29	Approach
129.175	29	ACC
129.400	29	Director
130.450	29	....
130.800	29	Clutch Radar
131.700	28	Lufthansa Dispatch
135.300	29	FIC
135.350	29	ACC/FIS
149.490	14	Rheinbahn
154.110	16	EVU
232.500	30	MACC/Clutch Radar
241.900	30	Approach
249.500	30	MUAC East
249.800	30	ACC/Clutch Radar
257.000	30	ACC/Clutch Radar
257.500	30	ACC/Clutch Radar
258.100	30	Info
266.800	30	MUAC
277.500	30	UAC
290.600	30	Approach Control
297.450	30	Approach/CVFR
298.500	30	ACC
310.400	30	MUAC West
311.300	30	MACC/Clutch Radar
337.100	30	MUAC West
340.300	30	MACC/Clutch Radar
343.300	30	Approach
353.800	30	Clutch Radar
356.100	30	Tower
362.300	30	MACC/Clutch Radar
366.900	30	MACC/Clutch Radar
369.100	30	Clutch Radar
369.500	30	Clutch Radar
373.300	30	Clutch Radar
374.200	30	ACC
381.050	30	Approach
383.800	30	Approach Control
399.600	30	Radar-Control

EMMERICH

85.475	05	BGS 'Wicking'

ERKELENZ

169.340	02	Pf 'Erka' Porto
459.890	12	Hilfedienst

ESCHWEILER

81.010	23	ABIN
458.410	23	

ESSEN

78.110	16	GEB
85.335	10	DRK
85.855	01	Pf 'Gruga'
119.750	30	Muelheim Tower
122.500	29	Muelheim Info
171.130	13	Stadtwerke

to be continued....

There are several abbreviations which have not been explained and some terms in either German or Dutch which have not been translated. I will try to get some more detail on these abbreviations and foreign terms . Til next month ....

Regency "Scanner Answer" Giveaway

Here's your chance to win a complete monitoring package from Regency Electronics and Lunar Antennas. 18 scanners in all will be awarded, including a grand prize of the set-up you see above: the Regency HX1500 handheld, the Z60 base station scanner, the R806 mobile unit, and a Lunar GDX-4 Broadband monitoring/ reference antenna.

55 Channels to go!

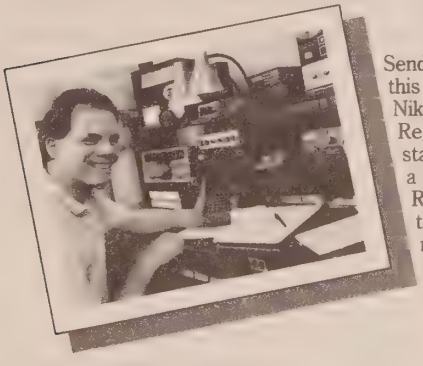
When you're on the go, and you need to stay tuned into the action, take along the Regency HX1500. It's got 55 channels, 4 independent scan banks, a top mounted auxilliary scan control, liquid crystal display, rugged die-cast aluminum chassis, covers ten public service bands including aircraft, and, it's keyboard programmable.

Compact Mobile

With today's smaller cars and limited installation space in mind, Regency has developed a new compact mobile scanner, the R806. It's the world's first microprocessor controlled crystal scanner. In addition, the R806 features 8 channels, programmable priority, dual scan speed, and bright LED channel indicators.

Base Station Plus!

Besides covering all the standard public service bands, the Regency Z60 scanner receives FM broadcast, aircraft transmissions, and has a built-in digital quartz clock with an alarm. Other Z60 features include 60 channels, keyboard programming, priority control, digital display and permanent memory.



Send in a photo (like this one of Mike Nikolich and his Regency monitoring station) and receive a free gift from Regency. Be sure to include your name, address and phone number.

Lunar Antenna

Also included in the grand prize is a broadband monitoring/reference antenna from Lunar Electronics. The GDX-4 covers 25 to 1300 MHz, and includes a 6 foot tower.

Regency® ELECTRONICS INC.
7707 Records Street
Indianapolis, IN 46226

Grand Prize (1 awarded)
1—Regency Z60 Base station scanner
1—Regency HX1500 Handheld scanner
1—Regency R806 Mobile scanner
1—Lunar GDX-4 Antenna

First Prize (5 awarded)
1—Regency Z60 Base station scanner
1—Regency R806 Mobile scanner

Second Prize (5 awarded)
1—Regency HX1500 scanner

Contest rules: Just answer the questions on the coupon, (all answers are in the ad copy) fill in your name and address and send the coupon to Regency Electronics, Inc., 7707 Records Street, Indianapolis, IN 46226. Winners will be selected from all correct entries. One entry per person. No purchase necessary. Void where prohibited by law. Contest ends June 30, 1987.

1. The Regency Z60 is
   ☐ a digital alarm clock ☐ an FM radio
   ☐ a scanner ☐ all of the above
2. The Regency R806 is the world's first _____ controlled crystal scanner.
3. The Regency HX1500 features
   ☐ 55 channels ☐ Bank scanning
   ☐ Liquid crystal display ☐ all of the above
4. The Lunar GDX-4 antenna covers ____ to ____ MHz.

Name: _____

Address: _____

City: _____ State: _____ Zipcode: _____

I currently own _____ scanners.

Brands owned: _____

PAID ADVERTISING

MARKETPLACE

Gary M. Darcy, Editor

Members may advertise, free of charge, items wanted, items for sale, items for trade that are associated with the hobby of monitor/utility radio listening. No dealer ads will be accepted for this column. RCMA assumes no responsibility for the outcome of any transactions between members resulting from ads printed in this column. Send to:

RCMA MARKETPLACE, c/o Gary M. Darcy, P.O. Box 1329, Palmdale, CA 93550

Please be sure to include your membership number.

All Marketplace ads will be accepted ONLY on special forms available from this column's editor. Send a self-addressed STAMPED envelope (business size) to the address above to receive a supply of forms. Foreign members do not need to include postage on envelopes they send.

NO COLUMN THIS MONTH

NEW PRODUCT REVIEW

This column is for reports on new products of interest to scanner listeners. Send reports on scanners, antennas, frequency publications and other products related to the hobby to:

James A. Abdu (GA-058), 1203 N. Crossing Way, Decatur, GA 30033

Hello and welcome to the New Year and the New Product Review column. This month I have a review of the Regency HX-1500 hand held scanner and information about a solution for the Regency HX-1200 'floating birdie' problem (NOV 86) among other topics.

The Regency HX-1500 is the latest hand held scanner offering from Regency. This sleek, compact and rugged unit has fifty five channels and four programmable banks with frequency coverage of 29-54MHz, 118-174MHz, 406-420MHz and 440-512MHz. It measures 3.0" x 6.9" x 1.5" and has some interesting features.

The HX-1500 has standard features such as channel 1 priority, delay (by channel), channel lockout, keyboard lock and two scan speeds and non-standard features of programmable scanning banks and channel review. There is also an auxiliary scan key on the top of the unit that is operable when the keyboard is locked out.

Frequencies may be entered into any channel directly. While in the manual mode enter the frequency, press the 'enter' key and then the two digit channel number and the frequency is stored in that channel. Once the frequencies are programmed then the banks may be programmed.

The banks are programmable and flexible in that the beginning and ending channels are designated for each bank. Any of the four banks can be assigned to any consecutive groups of channels, the banks can also overlap for greater flexibility. To assign channels to a bank you press the 'BANK' key. The display will change to a flashing dash and "bS" (for bank start) the two digit channel number for the first channel in the bank may then be entered. The display then changes to a flashing dash with "bF" (for bank finish) and the last channel for the bank may be entered. The display then changes to "b" and a flashing dash and the channels may be assigned to any bank by pressing the corresponding bank key (B1, B2, B3 or B4). The unit will then start scanning that bank. Other banks can then be assigned by repeating the process.

All fifty five channels will be scanned in the scan mode or any one bank can be scanned by pressing the corresponding bank key. As an example of the flexibility of the banks, bank 1 may contain channels 10 thru 20, bank 2 channels 01 thru 10, bank 3 channels 15 thru 25 and bank 4 channels 20 thru 55. Any combination is possible in any bank.

Channels may be locked out in the scan mode by entering the two digit channel number while scanning. To unlock a channel you just repeat the process. The locked channels will only be locked out when scanning all fifty five channels. There is no way to lock out channels when in the bank scan mode.

The review function will cause the unit to quickly display all fifty five channels in sequence. This is activated by holding down the 'MANUAL' key for more than one second. The channels are displayed too rapidly to check the frequencies but you can see which channels are locked out and check them manually.

To program the search limits you press the 'SEARCH PROGRAM' key, enter a frequency, press 'ENTER' and then press '1' to enter it as the lower limit or '2' to enter it as the upper limit. You may then enter the other limit, press 'ENTER' and '1' or '2'. To search this range press the 'SEARCH SCAN' key and the unit will search from the lower limit up in the fast speed mode only. In the search mode the delay function changes from delay or no delay to delay or hold. With delay the search will continue after about 2 seconds, with hold the 'SEARCH SCAN' key must be pressed to resume the search.

Operationally the HX-1500 works like a champ! The unit scans and searches quickly and the audio is crystal clear and LOUD (for a hand held). The sensitivity and image rejection are excellent. Weak signals come in loud and clear and images are not a problem. The HX-1500 is at least slightly better than the Radio Shack Pro-32 in these areas.

The liquid crystal display is small but adequate and can be illuminated by the light which is activated by a 'push to talk' type switch on the side of the unit. The keyboard lock switch is also on the side, at the top of the light switch.

The unit requires 8 AA batteries and has a Nicad battery charger jack on the bottom and uses the same charger as the Regency HX-1000 and HX-1200. There are also connectors for a drop in charger which should be available soon and will automaticlly adjust the charging rate for any of the three hand held units. The drop in charger (MA-256) for the HX-1000 and HX-1200 can be used with the HX-1500 only on slow charge (green light on). The batteries and HX-1500 may be damaged if the older charger is used in fast charge (red light on).

Speaking of the HX-1200... I had mentioned a problem Duane Peck (and others) had with an internal carrier that interfered with scanning and searching with the HX-1200. Regency has developed a fix to this problem and will repair the units at no charge. If you have an HX-1200 with this problem all you have to do is send the unit to Regency customer service at the following address:

Regency Electronics, Inc.
Customer Service
7707 Records Street
Indianapolis, Indiana 46226

Make sure to include a note stating the unit has the "floating birdie" problem. The unit will be repaired and also tuned and aligned at no charge. The turn around time should be 7-10 days if not sooner.

As a follow up on the Radio Shack Pro-32 review from last month I failed to mention that the unit may be used while recharging the Nicads. This is possible with the Pro-30 but you need a separate power connection for the power and charge jacks. I've also noticed a slight problem when using the priority in the scan mode. When the unit stops on a weak signal it sometimes will continue to scan after sampling the priority channel even though there is no activity on the priority channel and the unit should return to the week signal. This doesn't happen with strong signals, but I have noticed it more than once with weak signals. This may be annoying, but I think it's worth putting up with to have the ability to program any channel as priority. Another problem area is that the Pro-30 and Pro-32 antennas are secured to the plastic top of the unit and there is not a whole lot of support. The plastic in this area may crack or break with normal or heavy day to day usage.

The HX-1500 will cause the Pro-32 to lock-up when they are both programmed to the same frequency. The units do not interfere with each other when they are programmed to different frequencies.In the next column I will compare the features of these two units.

I contacted Radio Shack about getting a Pro-2004 scanner for review and was told that due to manufacturing delays the unit will not be available until this month (Jan 87) instead of November 86. The Pro-2004 has coverage from 25-520MHz and 760-1300MHz and THREE HUNDRED channels in ten banks of thirty.

Mark Abramowitz (TX 137) wrote in with some information on manuals for older Radio Shack scanners. Mark had purchased an older R.S. scanner which didn't have a manual with it. Mark checked with a local store and was told that the manual was no longer available. Mark then checked with the national headquarters in Ft. Worth, TX and discovered that copies of older manuals could be obtained from their Engineering Department. Thanks for the tip Mark! The address is:

Tandy Corporation
Engineering Dept.
One Tandy
Center Ft. Worth TX 76102

Gregory Morrow sent me "one of many" articles he has seen on meteor communications (OCT 86). It seem that the technique of using meteor trails for communications has been around for some time. The article (from High Technology, June 86 pg.68) states that the Colins Communications Systems Division of Rockwell International has been selling this type of system to the military for emergency backup communications and remote data acquisition. Meteor Communications Corp. (kent, Wash.) has also been selling meteor-burst hardware and software since 1975 for remote teletype and weather related data transmissions.

There is a system in Alaska called The Alaskan Meteor Burst Communication System (AMBCS) which is used by the Bureau of Land Management, Corps of Engineers, National Weather service and U.S. Geological Survey. The AMBCS is used to provide communications to remote areas when intense auroral activity disrupts normal communications. The FEMA has plans to install this type of system in each of it's regional centers.

The system operates with a master station that continuously sends a probe signal at a fixed frequency between 40 and 50MHz. When a remote station receives a probe signal it knows there is a meteor trail available and transmits it's message in a burst. With this system a data transmission rate of 2400 bits per second can send a teletype-like message at between 70-100 words per minute. Long messages are sent in many bursts. The remote stations can be as small as a briefcase and weigh around 20 pounds. Thanks for sending in the article Gregory.

Last but not least... I received a letter from Dave Marshall (OH 146), Managing Editor of the All Ohio Scanner Club in response to a tip on searching two bands (NOV 86). Dave states: " A little known feature of the old and long ago discontinued Radio Shack Pro-2002 Programmable 50 channel scanner is it's unusual search capabilities. The Pro-2002 has the capacity to maintain within it's memory 5 separate sets of search programs, which are accessed via the bank selection buttons. Another interesting feature is that the user can search any of those five search programs separately or consecutively in any sequence." The Pro-2002 has the same basic frequency range as the Pro-32 (but no 380-410MHz) and the priority may be programmed to any channel.

Dave continued: "The only faults of the Pro-2002 are it's slow and slower speeds of 6 and 3 channels per second... The Pro-2002 was discontinued in late 1982, but if someone wants one, they are not too difficult to find." and also "... the scan speed on Radio Shack programmable scanners cannot be modified in any way... the scan speed is controlled directly by the scanner's main programming chip, which cannot be changed." Thanks for this information Dave.

Until next month...
Jim Abdu

NEWS MEDIA COMMUNICATIONS

This column is for reporting frequency and radio systems information of news media. Send related reports and questions on newspaper, radio, television, magazine, film production companies, etc. to:

Allen G. Henney, MD-069, 6912 Prince Georges Ave, Takoma Park, MD 20912

TO START OFF THE NEW YEAR WE HAVE 3 GREAT FREQUENCY LISTS (2 COMBINED) FROM GEORGE WIGHT (CA-TO-ØØ1), BRIAN JOHNSON III (CA-SD-Ø73) & CHUCK (CA-SD-ØØ8). THERE WILL BE SEVERAL MORE MEDIA LISTS FOR CALIFORNIA IN THE FOLLOWING MONTHS. GEORGE SAYS THAT HE LIVES 5Ø MILES WEST OF YOSEMITE NATIONAL PARK & HE IS AT 3,5ØØ FEET ELEVATION IN THE HILLS WITH AN OUTDOOR ANTENNA 3Ø FEET HIGHER. GEORGE GETS STATIONS AS FAR AS 75 MILES AWAY. TOO BAD WE ALL CAN'T BE AsLUCKY AS GEORGE! HERE IS WHAT GEORGE SENT US, NOTICE THE DISTANCE BETWEEN MANY OF THE LISTED USERS.

AMPHLETT PRINTING COMPANY (SAN MATEO,CA) (KSQ641) 452.975
ANAHEM BULLETIN (ANAHEM,CA) (KLL297) 173.275
ASSOCIATED PRESS (LOS ANGELES) (KTI487) F1 453.Ø, F2 458.Ø C/C
BAKERSFIELD CALIFORNIAN (BAKERSFIELD,CA) (KEN45Ø) 173.275
CALIFORNIA NEWSPAPER INC (SAN RAFAEL,CA) (KRU413) 173.325
CBS F1 45Ø.Ø5, F2 45Ø.15, F3 45Ø.45, F4 45Ø.Ø875
CHRONICLE PUBLISHING COMPANY (DALY CITY,CA) (KBJ799) 173.375
COPLEY PRESS INC (TORRANCE,CA) (KBU715) 173.275
ALSO (SAN DIEGO,CA) (KNHZ369) F1 453.Ø, F2 458.Ø
EAST BAY NEWSPAPER INC (WALNUT CREEK,CA)
(KKQ423) F1 452.975, F2 457.975 CAR TO CAR (C/C)
FREEDOM NEWSPAPER INC (ANAHEM,CA) (KLL297) 173.275
ALSO (SANTA ANA,CA) (KCD765) F1 453.Ø, F2 458.Ø
FRESNO BEE NEWSPAPER (FRESNO,CA) 452.975 (KQY215)
KCRA (TV3) SACRAMENTO,CA
F1 45Ø.55, F1 455.55, HELICOPTER 161.73 'KCRA LIVE COPTER 3'
KOVR (TV13) (SACRAMENTO-STOCKTON,CA) F1 45Ø.45, F2 455.45
KQKK (FM96.7) MANTECA,CA
KTRB (AM86Ø) (MODESTO,CA) 17Ø.15
KVIE (TV6) (SACRAMENTO,CA) F1 45Ø.15, F2 455.15
KXTV (TV1Ø) (SACRAMENTO,CA) F1 45Ø.65, F2 455.65
LODI LIFE & TIMES NEWSPAPER (LODI,CA) 173.375 (WXL912)
LODI NEWS SENTINEL NEWSPAPER (LODI,CA) 173.325 (KLR973)
LOS ANGELES TIMES NEWSPAPER (KNCZ957) F1 173.325, F2 173.375
McCLATCHY NEWSPAPER COMPANY (SACRAMENTO,CA)
173.275 (KFH245), 452.975 (KQY215)
MERCED COLOR PRESS (MERCED,CA) (KNHK461) 453.Ø
MODESTO BEE NEWSPAPER (MODESTO,CA) 452.975 (WSI489)
NBC F1 153.35, F2 161.64, F2 161.67, F3 161.67, F4 161.7,
F5 161.73, F6 161.76
NEWSPAPER COMPANY (SAN FRANCISCO,CA)
(WNCG211) 173.225, (KOK531) 173.325, (WYN653) 852.3875
PASADENA STAR NEWS (KNAL215) F1 173.325, F2 173.375
PRESS ENTERPRISE (RIVERSIDE,CA) (KIH413) 173.275
SACRAMENTO UNION NEWSPAPER (KNCS728) 173.375
SAN JOSE MERCURY NEWS (SAN JOSE,CA) (WXN841) 173.325,
ALSO (KMJ272) 173.225, (WNCD224) F1 452.975 & F2 457.975 C/C
STOCKTON,CA NEWSPAPERS (THE BEE, UNION & STOCKTON DAILY) KCW487
F1 173.225, F2 173.275, F3 173.325, F4 173.375
TIME MIRROR COMPANY (KRJ233) F1 452.975, F2 457.975 CAR TO CAR
(COSTA MESA, LOS ANGELES, SAN DIEGO, SANTA BARBARA,CA)
TRIBUNE PUBLISHING COMPANY (BURLINGAME,CA) (KFB683) 453.Ø,
(OAKLAND,CA) (KUE218) 173.225, (KMK832) F1 453.Ø, F2 458.Ø C/C
WIRELESS MIKES (NATIONWIDE-VARIOUS USERS) F1 17Ø.Ø25, F2 171.Ø25

GEORGE NOTES THAT HE HEARS KCRA'S LIVE COPTER 3 ON 161.73 GIVING TRAFFIC REPORTS, & REPORTS FOR TV REMOTES. HE CAN RECEIVE THE IMAGE OF KCRA TV3 ON HIS BEARCAT SCANNER AT 44.15 MHz. THANKS GEORGE FOR SHARING YOUR VALUABLE RESEARCH WITH THE REST OF US!

OUR NEXT CALIFORNIA REPORT COMES FROM CHUCK (CA-SD-ØØ8) & BRIAN JOHNSON III (CA-SD-Ø73). BRIAN, IS ANOTHER PROFESSIONAL REPORTER-WRITER-NEWSCASTER & HAS BEEN SINCE 1972! BRIAN HAS WORKED AT MANY STATIONS THROUGH OUT ARIZONA, NEBRASKA, NEW MEXICO & CALIFORNIA. HE HAS ALSO WORKED WITH UPI & AP NEWS WIRE SERVICES. CHUCK ALSO HAS BEEN DOING A LOT OF MONITOING OF THE MEDIA AS HIS FREQUENCY LIST SHOWS IT. IT IS A GOOD FEELING TO HAVE 2 LISTS FOR THE SAME AREA THAT MERGE TOGETHER AS WELL AS THESE 2 DO. HERE IS WHAT THEY SENT FOR SAN DIEGO, CA AREA. THIS IS A GREAT LIST FOR ANYONE LIVING IN THE SAN DIEGO AREA AS IT COMES FROM 2 GOOD SOURCES. NOTE, THOSE FREQUENICES MARKED WITH AN '*' COME FROM BOTH CHUCK'S & BRIAN'S LISTS. THOSE MARKED WITH A 'c' COME FROM CHUCK ONLY.

SAN DIEGO, CALIFORNIA MEDIA

AAA AUTO CLUB SYNDICATED TRAFFIC REMOTES BY STEVE SPRINGER FOR AREA RADIO STATIONS 45Ø.7125 & 455.2375 c
KCST (TV39) NBC (KEH327) CH.1r 45Ø.4375/CH.2 455.4375 (PRIMARY) *
(KEH327) CH.3r 45Ø.4625/CH.4 455.4625 (SEC/ALT) *
45Ø.9125 MONICA ZECK TRAFFIC
KFMB (AM76Ø) (KFO787) 45Ø.2625 / 455.2625 *
KFMB (TV8) CBS (KEH339) CH.1 45Ø.3375 / 455.3375 (PRIMARY) *
(KEH34Ø) CH.2 45Ø.4125 / 455.4125 (SECONDARY) *
KGTV (TV1Ø) ABC (KMM789) 161.7ØØ (PRIMARY-NEWSDESK) *
(MOBILE) 161.73Ø (MOBILES ONLY)
(KRL429) 45Ø.2375 / 455.2375 (MICROWAVE CONTROL)*
(KPB945) 45Ø.3625 / 455.3625 (SECONDARY-NEWS)
KLZZ (KOGO) (AM6ØØ) (WHE955) 45Ø.2125 / 455.2125 *
KPBS (TV15) 45Ø.1125 c
KSDO (AM113Ø) (KUN343) 161.73Ø (REPORTERS) *
KUSI (TV51) INDEPENDENT 45Ø.Ø375 c
MONICA ZECK SYNDICATED TRAFFIC REMOTES FOR LOCAL RADIO STATIONS & ALSO USED WITH KCST TV NEWS BETWEEN 5 & 6 PM 45Ø.9125 c

BRIAN ALSO SENDS REPEATER SITE LOCATIONS...

KCST TV	(45Ø.4375)	(MT. MIGUEL)
	(45Ø.4625)	(MT. SOLEDAD)
KFMB RADIO/TV		(MT. SOLEDAD)
KGTV TV		(MT. SOLEDAD)
KLZZ RADIO		(MT. OTAY)
KSDO RADIO		(MT. MIGUEL)

MANY THANKS GO TO BOTH CHUCK & BRIAN FOR THIS 'INSIDERS' REPORT ON SAN DIEGO MEDIA. BRIAN IS LOOKING FOR MEDIA FREQUENCIES FOR PHOENIX & TUCSON AREAS IN ARIZONA. IF YOU CAN HELP BRIAN PLEASE SEND THE FREQUENCIES TO THIS COLUMN & I WILL PASS THEM TO BRIAN. THANKS. CHUCK HAS ALSO SENT A LIST OF MEDIA TERMS WHICH WE WILL PRINT IN A FUTURE ISSUE, DUE TO A LACK OF SPACE THIS MONTH.

UNTIL NEXT MONTH, STAY TUNED FOR MORE CALIFORNIA STUFF!

photo department

Send photographs of custom monitor listening posts, unusual or extensive monitor or two-way antenna systems, user station consoles (PD, Fire, Paramedics, etc.) or other monitor/two-way related equipment of interest. Photographs must be 3 X 5 inches or larger, black-and-white with good contrast, sharply focused and attractively composed. Each photo must be accompanied by details and explanations of equipment. Photos will not be returned. If you have questions, write first and please include an SASE. Send photos or write to:

Hugh Stegman, 4354 Coolidge Avenue, Los Angeles, CA 90066

NO COLUMN THIS MONTH

PUBLIC SAFETY

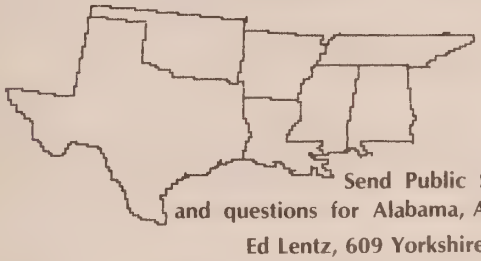
This column is for reporting Public Safety and Special Emergency frequency information, radio system details, radio codes, dispatch areas, unit numbering systems, etc. for poilice, sheriff, fire, forestry (except USFS), fish and game, highway patrol, state police, prisons, prisoner work camps, local government, highway & street maintenance, port authority/bridge maintenance, animal control, ambulances, paramedics, hospitals, life guards, ski patrol, search & rescue, flood control, civil defense and disaster organizations. Input and questions for this column must be sent to the proper regional Public Safety editor listed below.

Associated Public-Safety Communications Officers, Inc.

OFFICIAL TEN SIGNAL LIST

APCO states the numbering, sequence, words or word phrasing of the below listed signals may no be altered, nor may the reserved signals be otherwise implemented except by APCO. Any user may employ signal numbers upward, beginning with 10-40, as needed for local dispatching. RCMA publishes this listing in support of APCO and their uniform dispatch code efforts. We will print other dispatch codes, different from the OFFICIAL APCO listing, only to assist our membership in their continued monitoring hobby. It is hoped you find this listing useful.

10-1	Signal weak	10-19	(In) contact
10-2	Signal good	10-20	Location
10-3	Stop transmitting	10-21	Call ( ) by phone
10-4	Affirmative (OK)	10-22	Disregard
10-5	Relay (to)	10-23	Arrived at scene
10-6	Busy	10-24	Assignment completed
10-7	Out of service	10-25	Report to (Meet)
10-8	In service	10-26	Estimated time of arrival
10-9	Say again	10-27	License/Permit Information
10-10	Negative	10-28	Ownership Information
10-11	( ) on duty	10-29	Records check
10-12	Stand by (stop)	10-30	Danger/Caution
10-13	Existing conditions	10-31	Pick up
10-14	Message/Information	10-32	( ) units needed (Specify)
10-15	Message delivered	10-33	Help me quick
10-16	Reply to message	10-34	Time
10-17	Enroute	10-35 through 10-39 are reserved for future assignment by APCO. User option 10-40 upward.	
10-18	Urgent		



PUBLIC SAFETY - SOUTH CENTRAL

Send Public Safety and Special Emergency frequencies, radio system details, and questions for Alabama, Arkansas, Louisiana, Mississippi, Tennessee, Oklahoma, and Texas to

Ed Lentz, 609 Yorkshire, Pasadena, TX 77503-1450

GEnie - ELENTZ DELPHI - THISARSE COMPUSERVE - 72645,172

Hello and welcome. Remember to send in the information on your State Police for the April "Travel Edition." The more members that respond the better this can be. Who knows, maybe we can start a trend for RCMA to have a "Travel Edition" each year. This month I have more information than room to print so I will pass this on to the past Editor Ken Pehl.

(KEN TX-03)
A few months ago a few tropo ducting situations popped up again as is seasonal in the spring. I have been told by someone far better acquainted with proper propagation terminology, that in my past column I have consistently used incorrectly the term "tropo skip" to describe this situation. Either tropo (ducting) or "skip" occurs but never "tropo skip". Therefore I would like to stand corrected and offer my apologies for this error. (Maybe that is why I never received a reply to my questions in the August 1985 and March 1986 columns concerning a station heard via tropo?)

The point is that during a recent tropo occurance the "mystery" 155.340 repeater that was refered to in the August 1985 and March 1986 columns was heard once again. This time, however, a few locations were mentioned that allowed a better pinpointing of its orgin. It appears that the Midland/Odessa area is a likely candidate. The best guess at this point is that this "repeater' is in reality a simulcast of a UHF MED repeater, thus the "repeater"-like "kerchunk" sound. Incidently the dead carrier on 155.370 during the same opening is also still there, though now it has what sounds like a digital data carrier tone. Just speculating now, is it possible that someone's 155.370 transmitter is microwave controlled and during these ducting conditions, is being accessed by another microwave signal that contains digital signals? Does anyone else hear these two stations intheir area on a regular basis? I would like to know where these stations originate.

Ok folks, I know there are some of you out is this area of the State. Ken has been bugging several of us about this for the past year or so and we need your help. Give us a hand with your suggestions or knowledge of these stations.

* * * * * * ARKANSAS * * * * * *

Received some new information from Jeff(AR-10)

.. 146.685 Bismark Hams
.. 461.800 Community
.. 453.675 Hot Springs Water C.
.. 453.775 Hot Springs Transit
.. 462.325 St Joseph Paramedics
.. 155.550 Mena PD
.. 154.755 Pike Co F1
.. 37.320 Pike Co F2

* * * * * * LOUISIANA * * * * * *

Marvin (TX-02) called the other day and reported that Lake Charles Sheriff Office has moved to 155.595 with DVP.

* * * * * * OKLAHOMA * * * * * *

Chris(OK-031)

EMERGENCY FREQUENCIES / TULSA 1986 FLOOD
by Chris Elliott OK 031

FREQ.	AGENCY	COMMENTS
153.755	Tulsa Civil Defense EOC	Auxiliary Police
154.995	Tulsa City/County Health Dept.	
155.235	Okla. State Civil Defense EOC	
155.790	Sand Springs, Okla. Police	
155.070	Tulsa County Sheriff	Dispatch
163.4375	U. S. Army Corps of Engineers	EOC
165.0375	U. S. Army Corps of Engineers	
453.050	Tulsa Fire Department	Main
453.250	Tulsa Fire Department	Ch 2
453.675	Tulsa Civil Defense	R/C warning sirens
462.950	Tulsa Life Flight	medevac helicopter
462.975	Emergency Medical Services Auth.	EMSA
47.420	Tulsa Red Cross EOC	
146.880	Tulsa Ham Radio EOC	Repeater
146.940	Tulsa Ham Radio Weather Net	Repeater
161.760	KRMG radio remotes	AM radio station

NOTES: EOC - Emergency Operations Center
R/C - Remote Control

Tulsa Police and some other local agencies are not listed because they are now operating on a new 800 MHz system. Anyone know the frequencies?

* * * * * * TEXAS * * * * * *

Some update information from Brad(OH-138) in Ft Worth.
.. Arlington has replaced Mid-Cities Ambulance with LIFE STAR for their contract service.
.. Haltom City has a new contract with Meissner Brown Ambulance replacing Regional Ambulance. No frequency information on either system.
.. Some of the Ft Worth PD cars have mobile telephones installed.
.. (Editor) So does some of the Harris County Sheriffs Office.
.. Ft Worth City Marshals ID's are V180 - V199.
.. Colleyville PD is using 154.770 for PD and 453.925 for Local Government communications.

Now some information from Allan (TX-178), a new member.
.. University Park Police use:
155.370 as Channel 1
155.415 as Channel 2
.. Dallas Park Police unit numbers begin with 19 ie. 19XX
.. Dallas Police Helicopter identified as 1504
.. University Park Police Unit Numbers are:

700	Dispatcher
710 - 714	Commanding Officer of each watch
739	Ambulance
732	Possibly Fire Dept

.. Signal list for Dallas and University Park Police Dept.

6 - Disturbance	23 - Parking Violations
6X - Major Disturbance	24 - Abandoned Property
7 - Traffic Accident (Minor)	25 - Criminal Assault
7X - Traffic Accident w/injury (Major)	26 - Missing Person
	27 - Dead Person
8 - Drunk	29 - Open Building
9 - Theft	30 - Prisoner
11 - Burglary	31 - Malicious Mischief
12 - Alarm	32 - Suspicious Person
13 - Prowler	33 - Poisoning
14 - Knifing	34 - Suicide
15 - Officer needs Assistance	35 - Emergency Blood Transfer
16 - Injured person	36 - Abandoned Child
17 - Gang Fight	37 - Street Blocked
18 - Fire	38 - Meet Complaintant
19 - Shooting	39 - Racing - Speeding
20 - Robbery	40 - Other Violations
21 - Hold-Up Alarm	41 - Felony in progress (Broadcast as a 41-11)
22 - Animal Complaint	

The following is a joint effort of Ken (TX-03) and Terry (TX-95). Terry has worked up the LCRA frequencies with some marked with a "?" indicating they are unconfirmed. Some help is needed in confirming them.

Blanco County

Sheriff Office

Ch 1	154.755 R	KVN 667	SO dispatch (155.685 in)
Ch 2?	155.970 S	KVN 667	?used car to car?
Ch 3	154.950		Intercity mobile
Ch 4	155.370	KVN 667	Intercity base
	154.515 P	WXQ 555	Fire and EMS pager dispatch (plus other officials)
	37.180 S	KKN 749	Johnson City and Blanco VFD fireground ch.
	155.340 S	WXT 712	Johnson City EMS base - SO can xmit

(Note: license for 155.970 operations ?possibly fouled up with Johnson City, Tenn. (Sullivan Co., TN)

Unit numbers: 100's = Sheriff Dept; 150's & 160's = Blanco VFD; 200's = Blanco PD; 300's = Johnson City PD.

Police Dept's

Johnson City PD -- dispatched by SO - see above
Blanco PD -- dispatched by SO - see above

Fire Dept's

154.515 P WXQ 555 Fire & EMS pager dispatch - dispatched by SO
154.515 P WYC 332 Blanco Co. VFD dispatch
37.180 S ?KKN 749 Johnson City VFD fireground ch.
37.180 S ?KVF 637 Blanco VFD fireground ch.
170.075 R LBJ Nat'l Park - (includes NPS Fire Dept)

EMS CH's

154.515 P WXQ 555 Fire & EMS pager dispatch - dispatched by SO
154.515 P WYC 332 Blanco Co. Vol. Amb. Service
154.755 R SO primary - used to give response to dispatch
155.340 S WXT 712 LBJ Hosp-hosp to amb ch (DTMF code = 7115)
155.340 S WXT 711 Blanco Mills Nursing Home
458.025 M mob. ?possible HT extenders (license expired)
458.175 M mob. ?possible HT extenders (license expired)
468.xxx M " " UHF MED ch's (licensed/doubt it's in use within county/for out of town trips)

Local Govt ch's (not confirmed)
154.115 S KNGQ 804 Blanco LG
37.180 S WZX 810 Blanco LG

State Govt Ch's

Parks & Wildlife Dept
Ch 1 159.270 R P&W rptr - game wardens

151.340 S KNHD 606 Pedernales Falls State Park

151.340 S KNHN 540 Blanco State Park

State Dept of Highways & Public Transportation
Ch A 47.180 S KBS 318 Base to mobile (station 101)
Ch B 47.060 S KBS 318 Base to base (station 101)
also licensed 47.020, 47.080

Lower Colorado River Authority
Mobile's Channelization:

CH	RX	TX	use:
A	48.00	48.00	Mobile to mobile system wide
B	48.00	47.98	Mobile to base system wide (w/ phone patch in select areas)
C	47.96	47.96	Line construction crews system wide
D	48.02	48.02	Retail market operations (San Marcos, Kerrville, Bay City)
E	47.88	47.88	Coop Emergency (interface with regional cooperatives)
F	48.12	47.94	Phone patch 1 (?in select areas)
G?	47.82	48.28	PHone patch 2 (Austin)

UHF 1 451.100 R WQT 240 ?Pagers, admin.?
UHF 2 451.200 R WQT 240 ?Engineers, surveyors, admin.

LCRA ?telemetry channels & locations
(unconfirmed)
406.125 KNDC 976 Johnson City
406.175 WNBU 308 Round Mountain
406.175 WNBU 301 Johnson City

Federal Govt ch's

170.075 R Nat'l Parks Service - LBJ Boyhood Home - buses? (input?)
411.625 Nat'l Parks Service - ? link to 170.075 rptr in Stonewall (unconfirmed)

Comal County

(Note: most all of the following information is unconfirmed. Please help verify. That which is verified is marked with a "*". Info is gathered from POLICE CALL, Monitor America, and the FCC microfiche license files and off the air listening)

Sheriff Office

```
Ch 1 *155.595 R KVF 679  SO primary dispatch (154.710 in)
Ch 2 *156.000 R KNCK 656 SO secondary dispatch (?153.965 in)
                         ?Reserves dispatch//River Rd area
Ch 3  154.950            Intercity mobile
Ch 4  155.370 B KVF 679  Intercity Base
      155.370 B KRI 498  Intercity base (?CD? license)
Ch 5? 155.190 R mob.     NBPD primary disp. (?155.685 in)
       37.180 S KKO 588 ?still used?
```

Units: 301--320 = Deputies; 400's = ?Reserves?; 960's & 970's = wreckers; 3280's and 3480's = DPS/THP (also some DPS Region 6 units work area on I/C)

Police Dept

```
Ch ? *155.190 R WQT 639  New Braunfels PD prim disp. (?155.685 in)
Ch ?  155.805 S?WQT 639  NBPD ?simplex ch?
                         ?shared with Local Govt?
Ch 3  154.950 M          Intercity mobile
Ch 4  155.370 B WQT 639  Intercity Base
Ch 2? 155.595 R mob.     SO primary dispatch ch
```

Fire Dept Ch's

```
154.310 S KKV 500  New Braunfels FD - dispatched by PD?
154.310 S var.     Comal Co. VFD dispatch? (?dispatched by NBFD?)
                   ?licensed under city of New Braunfels?
```

(Note: Sequin FD (next door) is also dispatched on 154.310 but these are not combined dispatches.)

```
* 154.280 R KNED 326 Bulverde Fire dispatch (?155.925 in)
```

(Note: that's right, 154.280 rptr out! confirmed!)

```
154.250 S KNED 326 Bulverde VFD - interface with Bexar Co. Fire Alarm

154.445 R? KZT 439  Bracken VFD (?153.890 in)
```

Units: Bulverde FD ch -- 300's = Spring Branch ?VFD/?EMS; 600's = Spring Branch VFD; 700 = Bulverde rescue unit

EMS and Hospital Ch's

```
155.340 S KTO 541  New Braunfels Hosp., Inc.
155.280 S KTO 541  New Braunfels Hosp., Inc.
152.0075 P WNAZ 386 Mc Kenna Hosp. (pager)
155.340 S WNAZ 386 Mc Kenna Hosp.
155.280 S WNAZ 386 Mc Kenna Hosp.
```

Units: 125 = ?New Braunfels EMS (heard by referance only); 581 = ?New Bransfels EMS; 783/784 = Spring Branch EMS

Note: New Braunfels EMS dispatch frequency is unknown. Brachen EMS, Bulverde EMS, and Spring Branch EMS are dispatched on SO primary, using pager, by S.O. dispatcher. Bulverde EMS equipped with Bulverde Fire ch.

Civil Defense Ch's

```
 47.460 S KMA 558  Comal Co. Civil Defense // New Braunfels
 47.460 S KMA 559  Comal Co. Civil Defense // Canyon Lake
 47.460 S KIA 981  Comal Co. Civil Defense // New Braunfels
155.235 S KIA 981  Comal Co. Civil Defense // New Braunfels
```

Local Govt Ch's
(Note: some of these may be used for EMS or other fire dept dispatching)

155.880 R? KOB 363 ?use (?153.815 in) county LG license
155.880 S? KAZ 884 ?use - city LG license
155.805 S WQT 639 ?use - PD and LG licenses
154.100 S KZW 805 New Braunfels LG?
371.126? KNAP 206 Comal Co.//Canyon Lake - use???
?possibly typo for 37.260?

State Govt Ch's

DPS --
155.460 R KKR 920 DPS New Braunfels relay (154.695 in) for Austin and S.A. DPS offices
159.210 R KKR 920 DPS New Braunfels relay (154.680 in) for Austin and S.A. DPS offices

Parks and Wildlife Dept --
Ch 1 159.270 R KDN 437 P&W rptr - game wardens

State Dept of Highways and Public Transportation --
Ch A 47.180 S KBL 990 Base to mobile (station 249)
Ch B 47.060 S KBL 990 Base to base (station 249)
also licensed for 47.020, 47.080

Ch L 151.055 R KYT 35 Engineers (Ch M, 156.135 in) (station 341)

Lower Colorado River Authority KXM 560 (New Braunfels)
Mobile's Channelization:

CH	RX	TX	use:
A	48.00	48.00	Mobile to mobile system wide
B	48.00	47.98	Mobile to base system wide (w/ phone patch in select areas)
C	47.96	47.96	Line construction crews system wide
D	48.02	48.02	Retail market operations (San Marcos, Kerrville, Bay City)
E	47.88	47.88	Coop Emergency (interface with regional cooperatives)
F	48.12	47.94	Phone patch 1 (?in select areas)
G?	47.82	48.28	Phone patch 2 (Austin)

UHF 1 451.100 R ?Pagers, admin.?
UHF 2 451.200 R ?Engineers, surveyors, admin.

Recreational activities

30.760 S KYZ 589 Natural Bridge Caverns
35.180 S KNAR 231 Landa Garden Center (?park)
152.420 S KNFB 245 Abbott River Outfitters
462.725 R KAD 0068 Wurstfest Assoc.(GMRS rptr)

PUBLIC SAFETY — GREAT LAKES:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — Illinois, Indiana, Wisconsin, Michigan, Kentucky, and Ohio:

David Wilcox, 1711 Excalibur Drive, Janesville, WI 53545

Welcome to the January 87 column of Public Safety Great Lakes, and Happy new year. As far as membership input goes I don't have much, If you don't see anything from your area or state that simply means I need your help, please send in what ever your have.

ILLINOIS

From Jeff (IL-64) we have this report on a new dispatch center that began operations around July 1 1986 and is known as SOUTHWEST CENTRAL DISPATCH. The center is located adjacent to the Palos Heights village hall in Palos Heights, Illinois. The Communities, Frequencies, and numeric identifiers are as follows:

All fire departments dispatched by the center use 154.070 simplex

Blue Island Fire Department	2100 Series
Chicago Ridge Fire Department	6500 Series
Dixmoor Fire Department	2400 Series
Palos Heights Fire District	6400 Series
Palos Park Fire District	6300 Series
Posen Fire Department	2800 Series
Worth Fire Department	6700 Series

Police Departments use UHF repeaters and are listed below

Blue Island	470.737 Rptr	1900/3900 Series
Chicago Ridge	470.862 Rptr	1400 Series
Dixmoor	470.737 Rptr	3000 Series
Palos Heights	470.862 Rptr	1100 Series
Palos Hills	470.862 Rptr	1300 Series
Palos Park	470.862 Rptr	1200 Series
Posen	470.737 Rptr	1700 Series
Worth	470.862 Rptr	1600 Series

Thanks JEFF, and now we have an update from JOHN (IL-012) on the Bloomington & Normal area that appeared in the Oct 86 column.

State Police:
154.905 Is the DCI statewide Freq. the office in Bloomington ID's as "TDA-600".
39.50 Low band point to point.
Fire:
Bloomington's CH-2 is 154.190
Sheriff:
39.500 Is the old Mc Lean Co. Freq. Can still be heard on occasion.
154.815 Is the freq. Mc lean Co. uses to contact cars belonging to rural police departments.
Local Government:
155.835 Normal DPW
47.380 ILL. state highway dept.
Misc.:
39.660 Old Mc Lean Co sheriff (probably used in the car-base mode with 39.50).
453.550 Woodford Co. Sheriff Freq.
155.250 Pontiac police dept.
155.010 and 155.130 are old Normal PD Freqs.
155.130 and 154.890 are old Bloomington PD Freqs.
155.370 High band point to point
453.150 Bloomington PD Tactical Freq.
458.925 Input to Bloomington Pd's repeater
154.650 Is a mobile extender for Mc Lean co. Sheriff's dept.
159.030 Input to Mc Lean Co. Sheriff's repeater (154.815 out)
458.575,458.675 & 458.700 Are inputs to Mc Lean Co. Repeaters
453.175 Mc Lean Co. Paging Freq.
453.950 Normal Police Dept.
155.685 Dewitt County Sheriff'S Dept.

Also From JOHN comes some information on Kendall County IL.

The Kendall Co. sheriff's Dept. uses 158.805 for tactical purposes. It's called channel 16. The UHF Freq. 460.525 is to well known, so chit-chat and other misc. traffic comes over on 158.805.

OHIO

From BOB (OH-157) comes this report on confirmed hits in Jefferson and Belmont counties Ohio.
Jefferson:

33.940	WZY437	Unionport Fire Dept
33.940	WYZ327	Bloomingdale Fire Dept
33.940	KXQ768	Smithfield Fire Dept
33.940	WYK453	Toronto Fire Dept
33.940	KDE672	Wells Township Fire
45.480	KDQ271	Wintersville Fire & Police
154.310	KQA392	Steubenville Fire Dept

154.325	KDD973	Mingo Junction Fire Dept
154.875	KQB350	Steubenville Police

Belmont:

33.940	KQI976	St. Clairsville Fire Dept
154.310	KDZ320	Martins Ferry Fire Dept.

WISCONSIN

For Wisconsin, JEFF (IL-640) sent in this report on the Wisconsin State fair located in West Allis Wi.

154.965	Fair park police and operations
155.475	Security and operations
453.287	Repeater operation of park maintenance and ops only

Thanks JEFF, and as for membership input that's all I have. From my own files is a printout of Walworth County Wisconsin, this is all I have for Walworth, the first half of the printout is confirmed. Any corrections will be greatly appreciated. Again please consider taking time and let me know if you would like to help us with this database. Just send me a note on the county or counties in Wisconsin orIllinois (Just the counties that boarder Wi.) that you want to work on, and I'll send you them.

46.240	Darien Village Of	PF	KD9221	Darien		Fire
155.370	Darien Village Of	PP	KA82389	Darien		Police
155.475	Darien Village Of	PP	KA82389	Darien		Police
39.760	Delavan Town Of	PP	WQS474	Delavan		Police
39.820	Delavan Town Of	PL	KZY910	Delavan		PD Base
39.820	Delavan Town Of	PL	KJA517	Delavan		PD
46.240	Delavan City Of	PF	KP3418	Delavan		Fire
151.010	Delavan Township Of	PH		Delavan		Highway
154.295	Delavan Town Of	PF	KJD877	Delavan		Fire
155.220	Lenon Bus Service In	PS	KLE811	Delavan		Bus
155.370	Delavan Town Of	PP	KVC947	Delavan		Police
159.135	Delavan Township Of	PH		Delavan		Highway
453.550	Delavan City Of	PP		Delavan		Police
453.650	Delavan Lake Sanitar	PL	KNIB478	Delavan		Sanitary
39.340	East Troy Village Of	PP	KSE992	East Troy		PD Cars
39.420	East Troy Village Of	PP	KSE992	East Troy		PD Cars
39.460	East Troy Village Of	PP	KSE992	East Troy		PD L P-P
39.980	East Troy Village Of	PL	KEK408	East Troy		Local Govt
39.980	East Troy Village Of	PP	KEK408	East Troy		Local Govt
159.390	Wisconsin State Of	PO	KNDM578	East Troy		DNR
2134.00	Walworth County Of	PL	WNEK538	East Troy		Police
35.02	Walworth County Of	PH	KSE671	Elkhorn		Highway
39.100	Elkhorn City Of	PL	KYQ932	Elkhorn		Local Govt
45.160	Walworth County Of	PL	KTI389	Elkhorn		Local Govt
155.280	Walworth County Of	PS	KWH844	Elkhorn		Hosp
155.340	Trans-Mec Ambulance	PS		Elkhorn		Amb
155.370	Lagrange Town of	PP	KNFM278	Elkhorn		Police
155.475	Lagrange Town of	PP	KNFM278	Elkhorn		Wispern
155.610	Lagrange Town of	PP	KNFM278	Elkhorn		Police
39.100	Bloomfield Town Of	PL	KVM448	Genoa City		Local Govt
39.100	Genoa City Village O	PL	KXH718	Genoa City		Unknown
46.240	Genoa City Village O	PF	KUD754	Genoa City		Fire
153.980	Genoa City Village O	PL		Genoa City		Use/Unk
155.610	LaGrange Town Of	PP	KNFM278	LaGrange	*	Wtr Patrol
39.100	Lake Geneva City Of	PL	KXH719	Lake Geneva		Local Govt
39.340	Lake Geneva City Of	PP	KSD237	Lake Geneva		PD Cars
39.420	Lake Geneva City Of	PP	KSD237	Lake Geneva		PD Cars
39.460	Lake Geneva City Of	PP	KSD237	Lake Geneva		PD L P-P
155.160	Ski Majestic Ski Pat	PS	KNAY662	Lake Geneva		Ski Hill
46.240	Lyons Township Of	PF	KJB910	Lyons		Fire
46.580	Lyons Township Of	PL	KNHE621	Lyons		Local Govt
155.340	Lyons Township	PS		Lyons	*	EMS
46.360	Troy Center Fire Dep	PF	KWS383	Troy Center		Fire
45.980	Walworth Village Of	PP	WQB724	Walworth		PD
46.380	Whitewater City Of	PF	KDN941	Whitewater		Fire
46.380	Lauderdale-Lagrange	PF		Whitewater		Fire
155.925	Whitewater City Of	PL	KUG846	Whitewater		LG?
45.840	Williams Bay Village	PL	WRR	Williams Bay		Unknown
46.240	Linn Town Of	PF	KNHA864	Zenda		Fire

46.380	Bloomfield Town Of	PF	Unknown	Bloomfield	Fire
46.380	Darien Village Of	PF	WZH630	Darien	Fire
39.340	Delavan City Of	PP	KEG922	Delavan	PD Cars
39.420	Delavan City Of	PP	KEG922	Delavan	PD Base
39.460	Delavan City Of	PP	KEG922	Delavan	PD L P-P
39.820	Delavan City Of	PP	KEG922	Delavan	PD Base
46.380	Delavan Town Of	PF	KJD877	Delavan	Fire
46.380	Delavan City Of	PF	KRK958	Delavan	Fire
155.370	Delavan City Of	PP	KEG922	Delavan	P-P
453.925	Delavan City Of	PL	KNEV339	Delavan	EMS Rptr
46.380	East Troy Village Of	PF	KDV748	East Troy	Fire
155.370	East Troy Village Of	PP	KSE992	East Troy	P-P
159.165	East Troy Town Of	PH	KQP499	East Troy	Highway
159.225	Wisconsin State Of	PO	KNDM578	East Troy	DNR Ranger
159.255	Wisconsin State Of	PO	KNDM578	East Troy	DNR Ranger
159.330	Wisconsin State Of	PO	KNDM578	East Troy	DNR Fire
33.020	Walworth County Of	PH	KSE671	Elkhorn	Highway
39.340	Walworth County Of	PP	KSC529	Elkhorn	PD Cars
39.420	Walworth County Of	PP	KSC529	Elkhorn	PD Base
39.420	Elkhorn City Of	PP	KNAN624	Elkhorn	PD Base
39.460	Walworth County Of	PP	KSC529	Elkhorn	PD L P-P
39.460	Elkhorn City Of	PP	KNAN624	Elkhorn	PD L P-P
39.580	Walworth County Of	PL	KUO891	Elkhorn	PD B & C
42.040	Wisconsin State Of	PP	KSF760	Elkhorn	WSP
42.380	Wisconsin State Of	PP	KSF760	Elkhorn	WSP
46.380	Walworth County Of	PF	KBJ221	Elkhorn	Fire
46.380	Walworth County Of	PF	KZZ495	Elkhorn	Fire
46.380	Elkhorn City Of	PF	KNAK680	Elkhorn	Fire
151.460	Wisconsin State Of	PO	KNFP309	Elkhorn	WSP M-M
154.540	Walworth County Of	IB	KVW908	Elkhorn	Pagers
155.115	Walworth County Of	PL	KUO891	Elkhorn	Page/MVR's
155.340	Walworth County Of	PS	KWH844	Elkhorn	Hosp
155.370	Walworth County Of	PP	KSC529	Elkhorn	P-P
155.445	Wisconsin State Of	PP	KSF760	Elkhorn	WSP Dist 2
155.475	Wisconsin State Of	PP	KSF760	Elkhorn	Wispern
155.475	Walworth County Of	PP	KSC529	Elkhorn	Wispern
159.285	Wisconsin State Of	PP	KA6570	Elkhorn	Wsp Dist 2
811.4375	Walworth County Of	GP	KNHY580	Elkhorn	PD Cars
812.4375	Walworth County Of	GP	KNHY580	Elkhorn	PD Cars
856.4375	Walworth County Of	GP	KNHY580	Elkhorn	PD BASE
857.4375	Walworth County Of	GP	KNHY580	Elkhorn	PD BASE
155.835	Fontana Village Of	PL	KFO911	Fontana	EMS-Fire
46.380	Genoa City Village O	PF	KUD754	Genoa City	Fire
46.380	Lauderdale LaGrange	PF	KJD317	LaGrange	Fire
46.380	Lake Geneva City Of	PF	KDE203	Lake Geneva	Fire
151.400	Wisconsin State Of	PO	KDO896	Lake Geneva	DNR-Brown
155.715	Linn Town Of	PL	KTI847	Lake Geneva	LG
46.380	Lyons Township Of	PF	KJB910	Lyons	Fire
46.380	Sharon Village Of	PF	KYQ931	Sharon	Fire
45.360	Walworth Village Of	PL	KBR358	Walworth	DPW
33.020	Whitewater City Of	PH	WQI999	Whitewater	Highway
39.040	Whitewater City Of	PP	KSA493	Whitewater	PD Cars
39.340	Whitewater City Of	PP	KSA493	Whitewater	PD Cars
39.420	Whitewater City Of	PP	KSA493	Whitewater	PD Base
39.460	Whitewater City Of	PP	KSA493	Whitewater	PD L P-P
154.085	University Of Wiscon	PL	KJA972	Whitewater	Police
155.370	Whitewater City Of	PP	KSA493	Whitewater	P-P
39.340	Williams Bay Village	PP	KFY404	Williams Bay	PD Cars
39.420	Williams Bay Village	PP	KFY404	Williams Bay	PD Base
39.460	Williams Bay Village	PP	KFY404	Williams Bay	PD L P-P
46.380	Linn Town Of	PF	KNHA864	Zenda	Fire

PUBLIC SAFETY — NORTH EAST:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — New England states, New York, Pennsylvania, New Jersey, Maryland, Delaware, and District of Columbia:
Gary Saffer, 5 Roach Road, Stoughton, MA 02072

Welcome to the January edition of the PSNE column. The sharp eyed among you will notice that the column is in a different type style this month. This is due to a new typewriter, which among other features has automatic correction. This is an important feature to someone who is as poor a typist as I am. Before I bore you all to death with the details of this wonderful machine, I think that I will just get on with the column.

A couple of things that I didn't mention last time; I have an amatuer radio license Technician Class with the callsign of N1BFP. The second item concerns time lag. As I am writing this it is the middle of October, however you will not see it until the end of December or maybe even early January. This poses a problem in that I will have to provide four or maybe even five months of columns before any of YOUR material appears. I know that you all will be sending in lots of stuff, right ? Of course you will.

All this is to excuse any short and/or relatively boring columns. If nothing else I might resort to throwing in a few war stories, if nothing else will give you an incentive to send stuff in that should. Now on to the good stuff.

I have two book reviews this month. The first is the new Scanner Master Massachusetts Pocket Guide. This handy pocket sized (4"x7") book is in essence a smaller version of the full sized Scanner Master book. The book has three section, first a community listing with Police, Fire, EMS, and Public Works listings. The second is a collection of specific system information including State Police, metro police,fire mutual aid systems, and EMS information. The third section is an alphabetical sort of ambulance and security frequencies by company name. What's missing from this book is the business and aircraft listings in the community section. If you scan on the go this book is very useful to have. Price is around $10.00

The other book is titiled the Official New Hampshire Scanner Guide. Exactly who or what has made this book official is not known to me but that is the title. This is a large format book that contains police,fire, and most other types of frequency listings. It is composed of three sections. The first section contains general information, system information and some code lists. The second section is composed of the so called community listings and includes police, fire ambulance, local government, business and more. The third secton is a frequency listing with all users of a specific frequency listed. There are however several things missing from this book that make less complete than you would think a $ 14.95 book would be. What's missing? There is no information at all regarding any of the large and rather extensive fire mutual aid systems. From what I remember from when I lived in New Hampshire several years ago the systems used central dispatch, system wide callsigns consisting of a number designation for the town, followed by a letter designation for the type of appratus followed by another number for the specific piece. Yet none of this is reflected in the book. This a rather serious deficiency in a book that is as expensive as this. All things considered though this book is a useful guide for the New Hampshire listener.

Now for some frequncy type stuff. Massachusetts General Hospital Security has changed frequencies, they are now found on 472.7875. They are part of the BAPERN system although

I thik they will retain what ever callsigns they are now using instead of getting BAPERN ones. The equipment consists of mostly portables these being Motorola MX 350s radios with four channels. They do however have a nice new state of the art Motorola Centracom II console. I got to take a look at the equipment but unfortunately photos are not allowed.

Some more Boston EMS news. The new frequency of 460.550 is being used by the communications section at this time. Future plans call for moving dispatch to this channel in the future. In addition by the time this issue sees print we should be licensed for 460.525. This frequency which will be shared with the Worcester will probably be used for administrative traffic to keep interference to a minimum. We have also started to receive some new trucks and with them new mobile radios. These are brand new Motorola Syntor X-9000 radios with alpha-numeric displays and are technician programmable. I will try to have a picture for next months issue. I haven't had a chance to really sit down and play with the new radios but, I do know that they have scan, with priority, repeater talk around and multiple PL. More news as I get it.

If you listen in Boston be sure to listen to the MBTA Police. For those of you who don't know what the MBTA is it is the Massachusetts Bay Transit Authority. The system covers most of the Metropolitan Boston area with a combination of buses, subways,trolleys, and commuter rail. The "T" Police are responsible for patrolling stations, repair facilities, and investigating crimes anywhere in the system. They accomplish this with a combination of cars, wqgons, foot patrols and even motorcycles. Officers have full jurisdiction and powers of arrest in any city or town that is served by the system.

The department is on the BAPERN system with the department frequency being 470,6625. Callsign stucture is a little unclear but seems to follow the following pattern. Mobiles are designated RED BLUE ORANGE or GREEN corresponding to the four different lines. For example Red 872 is a unit responsible for responding to call at Red line subway stations or along the right of way. The numbers following the color edesignation are arbitrary and correspond to the vehicle being used that day. In additon the officers assigned to foot patrol in the various stations appear to use the four digit ID numbers assigined to the particular portable radio being carried that day. Unlike other transit systems, New York for example, officers do not ride on the trains or buses. Trains with the need for police service will radio in to the operations center (which is a separate facility from police operation) for assistance and will be met at the next station.

In additon to the police department there are in each station and several other locations Inspectors. These are not actually police officers , other "T" employees who are incharge of the stations and are responsible for making sure that everything flows as smoothly as possible. However they do wear badges that say police and do have powers of arrest. This is a hold over from the time before there was a separate police department, These people will be found operating on the other "T" channels.

MBTA Police nomenclature

Control - Headquarters
Charlestown Control - Money counting room in Charlestown
Route 1,2,3, etc... - teams escorting the money collecters
RED xxx mobile unit patrolling the Red line
BLUE xxx mobile unit patrolling the Blue line
GREEN xxx mobile unit patrolling the green line

ORANGE xxx mobile unit patrolling the Orange line
CENTRAL xxx mobile unit patrolling in the downtown Boston area

The following codes are used mostly by the operations people as opposed to the police, but do sometimes crop on police radio.

CODE		CODE	
1	Fire or smoke	5	Need ambulance
2	Person under train	6	Unusual occurance
3	Derailment/accident	7	Bomb threat
4.	Send Police	8	Disorderly person

This is only a partial picture of the department. If anyone out there has any more information please write to me and let me know.

To finish up the column this month I have some Maine State Police information and Fall River MA unit assignments.

Maine State Police

Channel	Frequency	Use
1	154.710 S	Emergency
2	154.695 S	Car to Car all
3	154.665 R	Southern Areas
4	154.650 R	Central Area
5	154.905 R	Northern Area
6	154.935 S	Car to Car SP only
7	154.475 S	Statewide intersystem
8	156.045 S	Turnpike units

Radio Codes

10-1 Recieving poorly	10-40 Request to Leave Patrol
10-2 Receiving well	10-41
10-3 Ready to receive	10-42 Dog Complaint
10-4 OK	10-43 Intoxicated Person
10-5 Relay	10-44 Possible Mental Subject
10-6 Emergency Traffic only	10-45 Domestic Complaint
10-7 Out of Service	10-46 Prisoner in Custody
10-8 In Service	10-47 Request Medical Examiner
10-9 Say Again	10-48 Sudden Death
10-10 Out of Service (Standy)	10-49 Possible Homicide
10-11 Dispatching to Fast	10-50 Cruiser in Accident
10-12 Standby at location	10-51 Debris in Road
10-13 Report road condition	10-52 Improperly parked vehicle
10-14 Escort	10-53 Possible OUI
10-15 Party in Vehicle	10-54 Drag Racing
10-16	10-55 Vehicle Accident
10-17 Meet Complainant	10-56 Tow needed
10-18 Complete Assignment	10-57 Send Ambulance
10-19 Return to Station	10-58 Direct Traffic
10-20 Location	10-59
10-21 Call by Phone	10-60 Lost Hunter
10-22 Give Phone # at Loc.	10-61 Hunting Accident
10-23 Stand by	10-62 Drowning
10-24 Stolen/Wanted Vehicle	10-63 Night Hunting
10-25 Pedestrian Check	10-64 Dog/Deer Complaint
10-26 Holding Subject	10-65 Boating Accident
10-27 License Check	10-66 Snowmobile Accident
10-28 Registration Check	10-67
10-29 Stolen/Wanted Check	10-68
10-30 Improper Radio Traffic	10-69
10-31 Crime in Progress	10-70 Disturbance
10-32 Person with Weapon	10-71 Bomb Threat
10-33 Chasing Vehicle	10-72 Alarm of Fire
10-34 General Broadcast	10-73 Trouble at Station
10-35	10-74 Assist Officer
10-36 Time Check	10-75 Hold all Radio Traffic
10-37 Dispatcher on duty	10-76 Prison Break
10-38 Stopping Vehicle	10-77 Roadblock
10-39 Investigate Vehicle	10-78 Bank Alarm
	10-79 Plane Crash
	10-80 Business Alarm

10-81 Back in Town
10-82 Fight in Progress
10-83 Traffic Violation
10-84 Check Local Records
10-85 Will be Late
10-86 Open Door or Window
10-87 Off at Residence
10-88 On Portable
10-89 Too Much Air Time
10-90 Prowler
10-91 Grid System Give Coordinates
10-92 Need Radio Technician
10-93 Units in Area Resond Code 3
10-94 Request use of SP vehicle
10-95 Disaster Services
10-96 Call Home
10-97 Arrived at Assignment
10-98 Clear of Assignment
10-99 Night Safety Check

It appears that these codes are used by most or all local and county units in additon to the State Police. This would explain the presence of some codes that would not usually be used by a state agency. If anyone out there has additional information, especially unit id's please send it in.

Fall River PD Patrol Assignments

Car 1 North End to Freetown Line
Car 2 Highlands Area
Car 3 Lower North End
Car 4 Downtown Area
Car 5 Flint Area
Car 6 East End and Rte 6
Car 7 Shopping Center Area
Car 8 Niagra Area
Car 9 South End
Car 10 Globe Area
Car 11 Upper Columbia St And Corky Row Area
Car 12 Lower Columbia St.
Cars 1-12 are marked sector cars
Cars 13-24 are marked spare and extra cars
MCD 1-8 Major Crimes Division (unmarked cars)
ISU 1-4 Investigative Services Unit (unmarked cars)
S1-4 Patrol Sargenats
Tac. North and South Unmarked anti-crime units assigned to uniform division
K-9 North and South Dog Units
1-10 Walking beats

PUBLIC SAFETY — SOUTH EAST:

Send Public Safety and Special Emergency frequencies, radio system details, and questions as follows — Florida, Georgia, N. Carolina, S. Carolina, W. Virginia and Virginia:

Jorge L. Rodriguez, 1129 Castile, Coral Gables, FL 33134

Hello! Welcome to the first Southeast Public Safety Column of the New Year.

This month we have part two for the North Carolina Forestry service material. In addition to that Dean of Ormond Beach, Florida has sent in a list of the active public safety frequencies in his area.

Also in this months column is a listing of Station Addresses and Numbers for the Metro-Dade Fire department. And William GA-062 has provided a rather complete look at Houston County, Georgia.

Finally, I would like to thank all of the members in the Southeast that have taken the time in recent months to send in material for the column; Thank you and keep those letters and cards coming. Lets make SE/PS even better in 1987.

From Joe MD-015

Part 2 **THE NORTH CAROLINA FOREST SERVICE**

District 1 ASHEVILLE Channel 4

1-1	District Forester	Asheville
1-2	Ast.District Forester	"
1-3	Service Forester	"
1-4	District Ranger	"
1-5	Service Forester	Arden
1-6	Technician	Asheville
1-8	District Mechanic	"
1-9	Equip. Operator	Alexander
1-10	"	Marion
1-12	Bearwallen Towerman	Gerton
1-16	District Scout	D1 Shop
1-19	Utility Pickup	D2 Shop
REG 3-9	Radio Engineer	Asheville
1-55	Buncombe County Ranger	"
1-56	Ast.Buncombe Co. Ranger	Arden
1-57	Buncombe Co. Smokechaser	Fairview
1-65	Henderson Co.Ranger	Horseshoe
1-67	Henderson Co.Smokechaser	Hendersonville
1-70	Madison Co. Ranger	Marshall
1-71	Ast. Madison Co. Ranger	Mars HIll
1-75	McDowell Co. Ranger	Marion
1-76	Ast. McDowell Co. Ranger	"
1-80	Mitchell Co. Ranger	Bakersville
1-83	Mitchell Co. Smokechaser	Spruce Pine
1-85	Polk County Ranger	
1-87	Polk County Smokechaser	Mill Springs
1-90	Rutherford Co. Ranger	Bostic
1-91	Ast.Rutherford Co.Ranger	Rutherfordton
1-94	Rutherford Co.Smokechaser	Bostic
1-95	Yancy County Ranger	Burnsville
1-97	Yancy County Smokechaser	"

KNFE-672	District Headquarters	Asheville
KNDD-709	Buncombe County Headquarters	Asheville
KFG -478	Madison County	Marshall
KGR -392	McDowell County	Marion
WSN -752	Mitchell County	Bakersville
WST -751	Polk County	Columbus
KYL -833	Rutherford County	Rutherfordville
WZX -821	Yancy County	Burnsville

NOTE: Gas pumps at District 1 Headquarters in Asheville and Rutherford County Headquarters at Rutherfordsville.

Most of the portables used by District 1 are made by FEDERAL (tm) in addition to some by Motorola (tm) and General Electric (tm).

Next time District 2 **LENOIR, NORTH CAROLINA**

From Dean FL-??? The following list for the Daytona/Ormond Beach Area:

Ambulance Evac.		155.175
Daytona Beach	Mainland-West	154.785
Daytona Beach Police	Beach-East	155.070
Deland Police		154.740
FL. State Intersystem		155.370
FL. County Sheriff's Net		154.950
Flagler County Sheriff	F2	159.210
Flagler County Sheriff	F1	158.910

Florida Highway Patrol	Car-Car	154.920
Florida Highway Patrol	Car-Base	155.445
Florida Highway Patrol	Base-Car	154.680
Holly Hill Police		154.875
New Smyrna Police		155.640
Ormond Beach Police		155.010
Ponce Inlet Police		155.115
Port Orange Police		154.815
Volusia County Sheriff	F2	154.725
Volusia County Sheriff	F1	154.860
Volusia Sheriff	Deland	155.595

Metro-Dade Fire Department
Miami, Florida

STATION ADDRESSES & TELEPHONE NUMBERS

January 23, 1985

			Business Phone
Station 1	Miami Lakes	16699 NW 67 Ave	557-0200
Station 2	Model Cities	6460 NW 27 Ave	836-17/65/66
Station 3	Tropical Park	3911 SW 82 Ave	264-4525
Station 4	Coral Reef	9201 SW 152 St	235-5221/233-7507
Station 5	Princeton	13150 Hobson Dr	258-3112/258-6575
Station 6	Modello	15890 SW 288 St	248-3845/246-0380
Station 7	Pinewood	2601 NW 103 St	638-6674
Station 8	Aventura	2900 Aventura Blvd	935-5136/37
Station 9	Kendall	7777 SW 117 Ave	279-7745/46
Station 10	Sunny Isles	75-172 St	947-1551
Station 11	Carol City	18705 NW 27 Ave	621-6411/621-1432
Station 12	Airport	Bldg 1044 MIAD	871-6089
Station 13	Headquarters	6000 SW 87 Ave	596-8600
Station 14	South Miami	6130 SW 72 St	666-8531
Station 15	Key Biscayne	2 Crandon Blvd	361-1066
Station 16	Homestead	325 NW 2 St	247-5848/248-3464
Station 17	Virginia Gardens	7050 NW 36 St Extension	594-0100/594-0101
Station 18	No Miami-Central	13100 NE 8 Ave	891-6804/891-6805
Station 19	No Miami-West	650 NW 131 St	688-2710/688-2212
Station 20	No Miami-East	13000 NE 16 Ave	891-1849
Station 21	Haulover	10500 Collins Ave	944-3491/92
Station 22	Interama	15655 Biscayne Blvd	940-6396
Station 23	Kendall-South	7825 SW 104 St	274-9997/274-9735
Station 24	Tamiami Aiport	14749 SW 128 Terr	233-3871
Station 25	Opa-locka Airport	114 Ely Road	685-6707/681-9506
Station 26	Opa-locka	3190 NW 119 St	685-0049/685-9348
Station 27	North Bay Vil.	7903 East Dr	754-9653
Station 28	Hialeah Gardens	10350 NW 87 Ave	821-0612
Station 29	Sweetwater	351 SW 107 Ave	223-8807/221-0707
Station 30	Miami Shores	10050 NE 2 Ave	757-3461
Station 31	Sun Ray	17050 NE 19 Ave	945-1659
Station 32	Uleta	16899 NE 3 Ct	651-5161
Station 33	Eastern Shores	3851 NE 163 St	940-4702
Station 34	Cutler Ridge	10850 SW 211 St	251-2043/232-2325
Station 35	Miami Springs	201 Westward Dr	888-1617/888-9705
Station 36	Hammocks	10001 Hammocks Blvd	382-1043/382-1044
Station 37	West Bird	4200 SW 142 Ave	554-4762
Station 38	Golden Glades	575 NW 199 St	653-5494/95
Station 40	West Miami	901 SW 62 Ave	261-5038

Houston County Georgia Sheriff's Dept.
Operational Frequencies
Verified/Confirmed

From William (GA-062)

155.415 mhz	Primary Repeater Freq. (Dispatch) KUI-616
156.090 mhz	Input to repeater
154.935 mhz	Station to Station KTE-363

154.905 mhz Car-to-car (portables-mobiles only)
155.670 mhz MRD (Metropolitan Radio District)
155.370 mhz Statewide Station/Station
153.890 mhz County Fire/Rescue Dispatch KNDT-242
155.475 mhz Investigations/Tactical (Inv. cars only)

County Comm Center equipped with all above except investigators freq. It is used only by detectives in cars and HT's. Patrol Division vehicles contain primary ch.1, MRD ch. 2, station-to-station, ch. 3, car-to-car, ch. 4. Some patrol vehicles are equipped with more sophisticated radios with up to 30 channels available. These include county ambulance frequency (155.205 mhz), other city PD freqs in Houston County, and other surrounding jurisdiction frequencies. The primary repeater (155.415) is the only one operated for law enforcement in the Sheriff's Department. The Sheriff's Department is divided into several divisions: Patrol, Investigations, Juvenile, and Warrants. The radio designations are as follows:

Houston 1 - Sheriff
Houston 2 - Chief Deputy
Patrol 4 thru Patrol 19 - Patrol Division

Investigation Division
30 - Investigators Office
#31,33,34,35,37,38 - Investigators

Juvenile Division
#40 - Juvenile Office
#41,42,43,44,45,46 - Juvenile Officers

Warrant Division
#50 - Warrant Office
#51,52,53,54,55,56 - Warrant Officers

The Houston County District Attorney's Office uses the following designations in conjunction with the Sheriff's Office:

DA-23-11/District Attorney
DA-23-2/Deputy District Attorney
DA-23-3/Deputy District Attorney
DA-23-5/Deputy District Attorney
DA-23-8/District Attorney's Office

Georgia State Patrol troopers can communicate with the sheriff's office using the station-to-station chan. (154.905) to receive information. Call signs for troopers based at the Perry, Georgia post #15 are as follows:

GSP-053	GSP-425
GSP-054	GSP-541
GSP-115	GSP-638
GSP-167	GSP-675
GSP-295	GSP-710
GSP-345	GSP-716
GSP-377	GSP-742
GSP-384	GSP-824

Other units operating with the Sheriff's Dept. are designated:

Unit 61- County Jail
Unit 66 - County Justice-of-Peace
Unit 67 - County Constable
Unit 68 - County Constable
"70" Series - Automotive Service (wreckers)
"80" Series - Automotive Service (wreckers)

The Houston County Emergency Management Agency and Volunteer Fire Departments operate on one frequency, 153.890 mhz. They

do have capability to operate on most all other freq's, though. There are eight "districts" for fire dept's in the county. The call signs and designations are as follows:

Houston County Volunteer Fire Dept. Call Signs

Districts	Chiefs Call Signs
1-Centerville	District 1 - "Fire 1"
2-Bonaire/Kathleen	District 2 - "Fire 2"
3-Hayneville	District 3 - "Fire 3"
4-Lakes	District 4 - "Fire 4"
5-Elberta	District 5 - "Fire 5"
6-Henderson	District 6 - "Fire 6"
7-Crestview	District 7 - "Fire 7"
8-Meadowdale "800"	District 8 - "Fire 8"

Firefighters Vehicles Call Signs

District 1 trucks - Fire 101, 102, etc.
District 2 trucks - Fire 201, 202, etc.
District 3 trucks - Fire 301, 302, etc.
District 4 trucks - Fire 401, 402, etc.
District 5 trucks - Fire 501, 502, etc.
District 6 trucks - Fire 601, 602, etc.
District 7 trucks - Fire 701, 702, etc.
District 8 trucks - Fire 801, 802, etc.

Fire Districts, Asst. Chief Call Signs

District 1 - "Fire 11"	District 5 - "Fire 51"
District 2 - "Fire 21"	District 6 - "Fire 61"
District 3 - "Fire 31"	District 7 - "Fire 71"
District 4 - "Fire 41"	District 8 - "Fire 81"

Houston Fire Dept. Pagers

200 - HEMA Group Page	211 - Elberta VFD
201 - HEMA Director	288 - Station "800"
202 - HEMA Asst. Director	801 - Henderson VFD
000 - Lakes Fire Dept.	809 - Bonaire/Kathleen VFD
011 - Hayneville VFD	891 - Forestry Unit

PUBLIC SAFETY — NORTH CENTRAL:

Send Public Safety and Special Emergency frequencies, radio system details and questions as follows — Iowa, Kansas, Missouri, Nebraska, N. Dakota, S.Dakota, and Minnesota:

Michael W. Scheel, R.R. #1, P.O. Box 221, Walcott, IA 52773

Hello, Welcome to Public Safety-North Central. I am Michael W. Scheel. I was the editor of this column back in 82/83 for a while till I had to give it up because of time constraints. A little about myself. I am 33, a ex-marine corporal (72-76). Operated Multi-channel radios. Got my first PS capable radio's in 1968, my first scanner in 1978. I knew of RCMA back in 1976 when it was mention in a now defunt CB magazine but did not join till 9/79. For the column I would to keep the special item column. For 1987 Highway Patrol/ State Police due May 1st, State Fairs due July 1st, Highway maint. due Sept 1st. Make that State and County fairs.

IOWA ΔΔΔΔΔΔΔΔΔ

Cedar County, Iowa (County seat: Tipton)

A rural area in eastern Iowa. Cedar County is a gently hilled with farming as the main business. President Herbert Hoover is buried at West Branch, where his Presidental Library and Birth site is located. Interstate 80 runs through the southern part of the county. While US-30 runs through the northern part.

Sheriff Dept.

OPS	F1	154.725	154.725	BM
Info	F2	155.250	155.910	BM
LEA	F3	155.790	154.770	RP*
AID	F4	155.475	155.475	BM
PTP		155.370		BA

16-1	Sheriff
16-2	Deputy
16-3	Deputy
16-4	Deputy
16-5	Tipton PD car
16-6	Lowden PD car
16-7	Clarence PD car
16-8	Durant PD car
16-9	Disaster Services
16-10	Stanwood PD car
16-11	Bennett PD car
16-12	West Branch PD car
16-32	Sheriff's Auxillary car

The County Sheriff is the only 24 hr dispatch point in the County. It uses 154.415 as the main paging channel, besides the ambulances and fire depts. The Clarence Nursing Home, the public schools are alerted on this freq.

Only two School District is now using radios.

Clarence-Lowden S.D.	462.175 R
Lincoln S.D.	461.650 R

Ambulances

F1	155.340 BM	Amb to Hosp (state)
F2	155.220 BM	Amb to Hosp (local)
F3	154.415 BM	Fire-Defense
F4	155.475 BM	AID

16A1	Durant Volunteer Amb.
16A2	Durant Volunteer Amb.
16A3	Mechanicville VFD
16A4	Clarence Amb.
16A5	Stanwood Amb.
16A6	Bennett Amb.
16A7	Tipton Amb.
16A8	Tipton Amb.
16A9	West Branch ?

Fire

F1 154.415 BM
F2 154.280 BM

12x	Bennett
13x	Clarence
14x	Durant
15x	Lowden (rescue 157)
16x	Mechanicsville also 154.430B Linn Cnty Fire
17x	Stanwood
18x	Tipton (Rescue 16)
19x	West Branch

County Road Maint. 159.000 RPT
151.055 mo

Till next month. -30-

SEND PUBLIC SAFETY AND SPECIAL EMERGENCY, FREQUENCIES, RADIO SYSTEM DETAILS AND QUESTIONS FOR ALASKA, ARIZONA, COLORADO, HAWAII, IDAHO, MONTANA, NEVADA, NEW MEXICO, OREGON, UTAH, WASHINGTON AND WYOMING TO:

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****

Welcome to 1987. How time flies when you're having fun. If this is typed worse than last month, forgive me. I bought a new computer and already it is in the hospital. I have to do this on the old one.

I have a letter forwarded to me from Carol the General Manager. It is from a member who is unhappy about there not being anything from his state in the magazine in the last year. He doesn't think that the members should be expected to supply the information; "If we knew all

there was to know about our area and state there would be no reason to subscribe." Short of making the editors jobs full time so they can travel and find out what frequency is used for what purpose, I offer the following ways that I find out frequencies and uses in the Denver area.

1. Listen, listen, listen. Listen to the frequencies listed in the various frequency lists, but listen to the ones not listed too. The amount of changes in frequency use is staggering. I bought the complete FCC microfiche in 1982. It consisted of 463 fiche with 270 pages per fiche. I just received the Jan. 1, 1986 fiche. It is 918 fiche again with 270 pages per fiche. That is just about a doubling in less than four years.

Listen to what the frequencies are used for, is it dispatch?, or is it for clearances and listings?, or something else? When they go to channel 2, see what frequency they go to.

2. The above assumes that you know what frequencies to listen to. If you don't know, ask. Much of the time, departments are glad to give out the frequencies. Many feel that a citizen with a scanner is another pair of eyes they benefit from.

3. Cultivate a friend at the local radio shops. Except in the largest cities and counties, the radio service is done through a local shop.

4. Cultivate a friend who works for the news unit at the local media. They are the most avid users of scanners.

One last point. We don't subscribe to the club magazine, we join the club. Membership participation is all that makes it go. We are all volunteers and it will take the help of everybody to make the club continue as it has. By the way, I am still waiting for someone to volunteer to take over as editor of this column.

COLORADO

Denver Police - The rumors are rampant. Denver has licensed all 45 800 mhz channels that were not already licensed. Five of these are for Stapleton Airport and are in use (see below). The other 40 may or may not be used depending on which rumor you believe. The latest is that the Police Department will not go in the near future but that the Fire Department will use five channels in a non-trunked mode starting about the time you read this. The Police Department is purchasing 200 Computer Aided Dispatch (CAD) units and will start using them by the first of the year but they will not be on 800 Mhz. All is rumor except that the 45 frequencies are licensed.

DENVER FIRE - Construction has started on the new station 15 at 1375 Jackson St. This has been rumored for a couple of years. They have started setting up a command post at every fire. If the building is a high rise, they switch to channel two (154.070 simplex) and it is impossible to hear them unless you are at the scene.

STAPLETON AIRPORT - The switch to 800 Mhz is complete. The old police channel is dead (453.500). I expect to see new action on this frequency shortly. The old operations frequency appears to have been turned over to the parking lot operator. The new 800 Mhz frequencies are not trunked, all are repeaters with the input 45 Mhz down:

856.4375 Ch. 1 operations, autopatch
857.4375 Ch. 2 operations
858.4375 Ch. 3 maintenance
859.4375 Ch. 4 parking lot shuttle buses
860.4375 Ch. 5 security

A base called "COM-1" operates on all channels.

On October 29, they held a mock hijacking at Stapleton. My boss and I went out and watched. Was interesting. The main problem was communications. The Denver Swat team and the FBI were the main forces

involved. The following channels were used: DPD 5 453.700, Stapleton 5 860.4375, Denver EOC 155.955, FBI. The FBI used digital voice protection some of the time.

AURORA FIRE - (Tim MO-073). Aurora and the Cunningham FPD have made a mutual aid pact and Cunningham units are now dispatched on Aurora frequencies as station 61 (Cunningham Station 1 - 2250 S. Emporia) and station 62 (Cunningham Station 2 - 5600 S. Tower Rd.). Aurora and Cunningham units both respond to some calls.

SUMMIT COUNTY - (Daryl nonmember) In a weekend in Summit County the only frequencies that were active were the main dispatch channel (154.665 repeater out, 154.725 in) and the County fire channel 154.400 which was mostly paging, not necessarily fire related.

MONTANA Craig KD6PN

-City of Bozeman-

155.67R/154.725in	Bozeman Police KOA4Ø4
154.65	Bozeman Police car-car "tac" F3
154.25	Bozeman Fire F1 KZB328
154.205	Bozeman Fire F2
158.82	Public Works KOM969

-State of Montana-

154.92R/159.09in/159.15in	State Police KOG622
154.695	State Police car-car
155.43	MSU Police F1 KFZ9Ø1
155.745	MSU Police F2
462.85	School Operations
161.70	Civil Defense
155.925	Fish & Game Statewide
155.505	Fish & Game Bozeman Area
151.175R/159.405in	State Forestry
151.475R/159.33in	State Forestry Helena
151.22	State Forestry unknown
159.375	State Forestry car-car

-Gallatin County-

154.995R/153.815in	Sheriff "593" KYL61Ø
155.58	Sheriff car-car F3
155.475	NLEEF car-car F5
158.805	Search & Rescue
155.79	Police Mutual Aid
153.905	Interagency Mutual Aid
154.37	Gallatin Gateway Fire
153.89	Rae Fire
153.77	Bridger Canyon Fire
154.265	Belgrade Fire F1
154.445	Belgrade Fire F2
155.325	EMS Primary "F3"
155.205	EMS Secondary "F5"
155.28	Hospital to Ambulance
155.34	Hospital to Hospital
155.295	Veterinarians
155.16	Vets & School Buses
155.175	Doctors
155.265	Ski Patrol (Bridger Bowl)
154.54	Ski School (Bridger Bowl)
154.43	City of Livingston Fire

NEW MEXICO Danny NM-018

Carlsbad Police Dept.
155.910 Ch. 1 Dispatch city wide
155.130 Ch. 2 Tacitcal
Carlsbad Fire Dept.
154.310 Dispatch city wide
Carlsbad, South Eddy County Ambulance Service
463.050 Ch. 3 Ambulance to hospital, dispatch city and county wide
463.100 Ch. 10 Amulance to ambulance
Eddy County Sheriff's Office 155.070 Ch. 5 County wide
New Mexico State Police 155.550 State and County wide
Roswell Police Dept. 155.610
Inter-city 154.800 County wide
Maljamar Fire Dept. (volunteer) 154.310
Loco Hills Fire Dept. (volunteer) 154.310
Artesia Police Dept. 155.595
Artesia Fire Dept. 154.310

Editors question: is 154.310 sort of a statewide fire frequency?

NEVADA Jim CA-SF-030

Reno Police
453.575 Repeater "white" Car to car - tactical
453.600 Repeater "blue" Information
453.650 Repeater "green" Dispatch unit numbers 9100-9299
Jim notes that there may be addition channels but these are all he heard.
Reno Fire Department
453.750 Repeater Dispatch
453.700 "white" some fireground. May also be used by other city agencies.
Units heard: Engines 1-5, Trucks 1, 2, 6. Battalions 1, 2, 3. Utility 1, Reserve 1
Sparks Police 155.130
Washoe County Sheriff 155.520
Truckee Meadows FPD 158.745, 159.385
Nevada Division of Forestry 158.895 Repeater
Amateur Repeater 444.65
Weather 162.550

Jim notes that intermod was bad. Lots of tall buildings with transmitting antennas.

WASHINGTON Ron WA-075

Seattle Fire Department-Information

F1-453.800 Dispatch
F2-453.600 Fire Response
F3-453.700 Medic/Aid Response
F4-453.800 Simplex
F5-453.600 Simplex
F6-453.700 Simplex
F7-463.025 Med-Comm
F8-462.950 Med-Comm Control
F1,F2,F3 are repeater output channels with 458 mhz. inputs

Code Red Emergency response(lights/siren)
Code Yellow Reduce Response(no lights/no siren)
Code Green In service/discontinue response
Code Blue Request emergency police response

Response Types

Full Response: 3 Engines,2 Ladders,Battalion Chief
Reduced Response:2 Engines,1 Ladder,Battalion Chief
OR 1 Engine,1 Ladder,Battalion Chief
Service Response:1 Ladder OR 1 Engine OR 1 Aid Unit

Medic Response:1 Engine,1 Aid Unit,1 Medic Unit
OR 1 Aid Unit and 1 Medic Unit
Aid Response:1 Engine and 1 Aid Unit OR 1 Engine OR 1 Aid Unit
Rescue Response:2 Engines,1 Ladder,1 Aid Unit,1 Medic Unit

Next month - All Las Vegas Nevada. Randy CA-OR-230 has sent a very complete list for that area.

PUBLIC SAFETY—CALIFORNIA

P.O. Box 3962 Santa Fe Springs, California 90670-1962

Welcome to the first 1987 edition of PS-CA. The editors hope that the New Year brings to all the best possible [after all, we survived the "gloom and doom" predicted during 1984]. As this installment is being prepared, late word indicates President Reagan has signed into law, the Electronic Communications Privacy Act of 1986, following the recent passage by the US Senate. The ramifications of the Act are still unclear as far as the Newsletter is concern. The RCHA staff are busily working on it. And at this time, the PS-CA editors would like to express our thanks to all those would participated on behalf of us in dealing with this Act.

And until we receive additional word from "The Top," the PS-CA column will not change. Over the next few installments, we will be printing several lengthy input material that we received during the end of the year, in addition to new material submitted. We wish to apoligize in advance to those who submitted these articles, and have yet to see them in print. Included in this batch, are the following: The 1986 California State Fire Association Survey; San Bernardino County Fire Unit Numbering System [that is to be compatible with the new computer system]; and an overview of the Communications Division of Orange County [by the General Services Adminstration]. We also encourage you, out there, to continue to send us input. And as our "Winter Vacation Editors" Bartles and Jaymes would say: "...We thank you for your support..." And now, onto the new 1987 column...

Downey PD is now using 155.895 as a repeater, with 155.640 as input.

In Orange County,460.550 is used as simplex [ID'd as "Gray" freq] for police tactical.

From Jeff [CALA-535]: LA County Fire Department has reassigned their radio freqs, effective June 1, 1986. The VHF system is now the White System, and the UHF is the Blue system:

White	1	[154.430]	LA Dispatch
White	2	[154.340]	VALLEY Dispatch
White	3	[154.400]	ANTELOPE Dispatch
White	4	[155.340]	HEAR Net
White	5	[154.925]	LA Command/Tac
White	6	[154.280]	OES Mutual Aid

Blue	1	[470.5625]	LA Tac
Blue	2	[470.4375]	LA Dispatch/Command

Blue 3	[470.6125]	LA as assigned [by dispatcher/fireground]
Blue 4	[470.5125]	Admin/Command ALL
Blue 5	[470.6625]	Valley as assigned [by dispatcher/fireground]
Blue 6	[470.4125]	Valley Dispatch/Command
Blue 7	[470.4625]	Valley as assigned [by dispatcher/fireground]
Blue 8	[470.5375]	Admin/Command/C&M all
Blue 9	[470.6375]	Antelope as assigned [by dispatcher/fireground]
Blue 10	[470.3625]	Antelope [Bn.5,6,11] Dispatch
Blue 11	[470.5875]	Antelope [Bn.5 Coast] Dispatch
Blue 12	[470.4875]	LA DIGITAL ONLY [No Voice]

ALL of the dispatching is being simulcast on both VHF & UHF.

Jeff also advises that West Covina changes its Public Safety radio freqs as well. This East San Gabriel Valley community of 100,000 has changed as follows:

POLICE	[506.3375 R]	F-1	FIRE	[156.165]	F-1
	[506.4875 R]	F-2		[154.310]	F-2
	[506.5125 R]	F-3			

Jeff adds that in September, 1986 the fire department will merge with Covina Fire to form the new SAN GABRIEL VALLEY FIRE AUTHORITY.

From George [CASD-058]: Here are a few freqs for the Christmas Season when all the mall's are full:

154.515	Inland Center Mall [Security] San Bernardino
156.210	Central City Mall [Security/is SBPD F-2] ID's as "Whiskey"
464.975	Redlands Mall [Maint/Security]

Security Services:

154.570	California Plant Protection [Colton]
151.685	Blanket Security [San Bernardino National Orange Show
?	Seibert Security [Colton]
154.570	Broadway Security
154.600	Active Security freq [unknown]

George adds that there is a new police freq for Loma Linda: 155.145, and states they can't make traffic stops yet, BUT BEWARE!!!! George also asks if anyone is interested in a RCMA Chapter in the San Berdoo area, "...Let's hear from you thru the PS California..."

From Robert [CAOR-026]: In answer to a recent Inquiry Channel [Nov], 507.1125 is used by County Fire to page stations when dispatching calls. The only thing heard on this freq is "tone paging." He also adds that "Lifeflight" dispatch uses 155.400.

From Craig [CAVE-011]: The California Rescue Dog Association [CARDA] is a non-profit affiliate of the California Office of Emergency Svcs. CARDA assists government agencies by providng trained teams for emergency or tactical response operations. CARDA dogs are trained to do specific operations and are not "police" dogs, although many CARDA dogs do belong to a law enforcement agency and thus are "K-9" dogs as their employment. CARDA dogs are trained in the following:

Avalanche rescue; Wilderness rescue; Night search; Disaster searches [such as earthquakes, building falls, etc]; and Water searches [for drowing victims].

CARDA dogs are requested for an operation by calling the OES directly in Sacramento. The requesting agency then supplies specific info as to what type of dog is needed. The most important piece of info is whether a "scent article" is available. CARDA dogs are trained in two methods of searching: air scenting, and tracking. By air scenting the dog merely searches an area and locates any human nearby. By the

tracking method, a dog is able to retrace a specific persons footpath [even if the path has been crossed by other persons]. However, an "uncontaminated scent article" is required for the dog to be mentally assigned to the person. And urban areas pose no problems, as lost children in large shopping malls have been located routinely. CARDA teams are provided with radios on the following freqs:

155.265	"White"	Central & Northern California primary
155.160	"Red"	Southern California primary
155.220	"Yellow"	Statewide secondary
155.295	"Orange"	Alternate secondary
154.920	"Green"	Law enforcement coordination only / CLEMARS
155.475	"Blue"	Law enforcement coordination only / NLEMARS
156.075	"Black"	Statewide search clear frequency

CARDA dogs are of many breeds, and here are the ten most popular [and this list is not compiled by the Home Office of the "David Letterman" show]:

1 Golden Retrever
2 Labrador Retriever
3 German Shepherd
4 Gelgian Teffarin
5 Bouviet Des Flanders
6 American Bloodhound
7 English Bloodhound
8 German Shorthair Pointer
9 Doberman Pinscher
10 Rottweiler

Now that this column has gone to the dogs,let's switch to the Inquiry Channel:

Does anyone know who 166.825 belongs to? [It may be the VA, but can anyone locate where?]

From Fig [CALA-359]: Does Jeff [CALA-535], or anyone know what West Covina's "Channel 4" is? [Is it simplex of one of the three, or a

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different channel]? Further, does anyone have knowledge of the freq plan for the San Gabriel Valley Fire Authority, and will Covina Fire retain their "Red" [154.070] freq, once the merger is complete?

And last but not least, from Randy [CAOR-230]: Fullerton and Buena Park FD's are now dispatched by "Net 4" on 46.320 [Net 3]. Randy has also included the unit numbering systems for the Fresno Police Dept, and the Fresno County Sheriff. Randy also states that these are only partial listings, and needs more information as well as maps.

We also would like to include the 97 CHP Station listings [and freqs] courtesy of Rene [CASC-018]. This listing also includes the Temecula Station #115.

FRESNO POLICE DEPT.--- Unit Numbering System

<<PATROL>>

1A#1--I#1	Area 1 (Southwest)	101--109= Supervision
2A#1--I#1	Area 2 (Central)	201--209= Supervision
3A#1--I#1	Area 3 (Southeast)	301--309= Supervision
4A#1--I#1	Area 4 (Northeast)	401--409= Supervision
5A#1--I#1	Area 5 (Northwest)	501--509= Supervision
-M-	Motor units	
-W-	Walking Patrol	
-Z-	Community Service Officers	

Shifts=			
		6D-	Detectives
1	Graveyard		
2	Day	8T-	Traffic Enforcement
3	Swing		
4	Evening Overlap	511-519	Transportation Wagons

FRESNO COUNTY SHERIFF'S DEPT.--- Unit Numbering System

METRO AREA

#K01--09	Supervision
#K11	Patrol- Calwa, Malaga
#K21	Patrol- East Fresno
#K31	Patrol- North Clovis, Friant
#K41	Patrol- Fig Garden
#K51	Patrol- West Fresno
#K81--89	Community Service Officers
#K91--99	Canine

EAST AREA

#L01--09	Supervision
#L11	Patrol- Auberry
#L21	Patrol-
#L31	Patrol- Shaver Lake
#L41	Patrol-
#L51	Patrol-
#L81--89	Community Service Officers

SOUTH AREA

#N01--09	Supervision
#N11	Patrol- Reedley, Parlier, Orange Cove
#N21	Patrol- Sanger
#N31	Patrol- Fowler, Selma, Kingsburg
#N41	Patrol- Easton, Caruthers, Raisin City, Elm View
#N51	Patrol- Riverdale, Laton
#N71--79	
#N81--89	Community Service Offcicers

WEST AREA

#P01--09	Supervision
#P11	Patrol- Firebaugh, Mendota
#P21	Patrol- San Joaquin, Tranquility
#P31	Patrol- Five Points
#P41	Patrol- Coalinga, Huron
#P81--89	Community Service Officers

(Patrol unit #ing- last digit: 1 = 1-man, 2 = 2-man,
3--5 = Extra)

Fowler#	Fowler PD	54
Kerman#	Kerman PD	12,13,14,15
Org.Cove#	Orange Cove PD	11,13,31,35
#B01--19	Coroner	05,08
#B20--99	Jail, Transportation	27
#C-		36
#D-	Detectives	
#E-	Search & Rescue	05= Sgt.
#F-		
H42	CHP Helicopter	
#I-	Crime Scene Invstgtn.	18,27
#S-		11

97 CHP STATIONS

STA	AREA	DISP OFFICE	CHAN	BASE	MOB
1	BUELLTON	SAN LUIS	WHITE	42.56	42.72
6	BLYTHE	INDIO	RED	42.44	42.20
7	LAKEPORT	UKIAH	WHITE	42.56	42.72
8	KING CITY	MONTEREY	BLACK	42.44	42.70
9	PASO ROBLES	SAN LUIS	WHITE	42.56	42.72
12	VICTORVILLE	BARSTOW	WHITE	42.56	42.72
13	LAKE VALLEY	TRUCKEE	GREY	42.40	42.66
14	SANTA MARIA	SAN LUIS	WHITE	42.56	42.72
15	LA CENTRAL	LA	BLACK	42.46	42.70
16	HUMBOLDT	HUMBOLDT	GREEN	42.54	42.72
17	SANTA ROSA	SANTA ROSA	ORANGE	42.60	42.66
18	UKIAH	UKIAH	WHITE	42.56	42.72
19	CONTRA COSTA	OAKLAND	PURPLE	42.40	42.16
20	QUINCY	SUSANVILLE	BLUE	42.34	42.10
21	NAPA	SANTA ROSA	ORANGE	42.60	42.66
22	SOLANO	OAKLAND	PURPLE	42.40	42.16
23	HOLLISTER/SILINOY	MONTEREY	GREEN	42.54	42.24
24	SAN JOSE	SAN JOSE	BROWN	42.50	42.02
25	HAYWARD	OAKLAND	TAN	42.42	42.04
26	SANTA CRUZ	MONTEREY	GREEN	42.54	42.24
27	MONTEREY	MONTEREY	BLACK	42.46	42.70
28	SAN LUIS OBISPO	SAN LUIS	WHITE	42.56	42.72
29	SANTA BARBARA	VENTURA	GREEN	42.54	42.24
30	LOS BANOS	MERCED	ORANGE	42.60	42.66
31	VENTURA	VENTURA	PURPLE	42.40	42.16
32	SAN FRANCISCO	SAN FRANCISCO	PINK	42.44	42.70
34	MARIN/GG BRIDGE	SAN FRANCISCO	SILVER	42.00	42.28
35	OROVILLE	CHICO	BROWN	42.50	42.02
36	RED BLUFF	REDDING	RED	42.44	42.20
37	REDDING	REDDING	RED	42.44	42.20
38	SUSANVILLE	SUSANVILLE	BLUE	42.34	42.10
39	WILLIAMS	CHICO	BROWN	42.50	42.02
40	PORTERVILLE	FRESNO	PINK	42.44	42.70
41	YREKA	YREKA	PURPLE	42.40	42.16
42	GRASS VALLEY	SACRAMENTO	GREEN	42.54	42.24
43	YUBA-SUTTER	CHICO	BROWN	42.50	42.02
44	PLACERVILLE	SACRAMENTO	GREEN	42.54	42.24
45	AUBURN	SACRAMENTO	GREEN	42.54	42.24
46	SACRAMENTO,N.	SACRAMENTO	GOLD	42.12	42.26
47	WOODLAND	SACRAMENTO	BLACK	42.46	42.70
48	MODESTO	STOCKTON	YELLOW	42.54	42.72
49	SAN ANDREAS	STOCKTON	WHITE	42.56	42.72
52	MT SHASTA	YREKA	PURPLE	42.40	42.16
55	WESTMINSTER	SANTA ANA	GREY	42.40	42.66

STA	AREA	DISP OFFICE	CHAN	BASE	MOB
56	WEST VALLEY	LA	BROWN	42.50	42.02
59	MOJAVE	BARSTOW	WHITE	42.56	42.72
60	ALTURAS	SUSANVILLE	BLUE	42.34	42.10
61	SONOMA	STOCKTON	WHITE	42.56	42.72
62	STOCKTON	STOCKTON	WHITE	42.56	42.72
63	MARIPOSA	MERCED	ORANGE	42.60	42.66
64	MERCED	MERCED	ORANGE	42.60	42.66
65	FRESNO	FRESNO	SILVER	42.00	42.28
66	MADERA	MERCED	ORANGE	42.60	42.66
67	VISALIA	FRESNO	PINK	42.44	42.70
68	MANFORD	FRESNO	PINK	42.44	42.70
69	BAKERSFIELD	BAKERSFIELD	BROWN	42.50	42.02
70	GOLD RUN	TRUCKEE	GREY	42.40	42.66
71	BRIDGEPORT	BISHOP	BLUE	42.34	42.10
72	BISHOP	BISHOP	BLUE	42.34	42.10
73	BARSTOW	BARSTOW	WHITE	42.56	42.72
74	RIVERSIDE	SAN BERNARDINO	GREEN	42.54	42.24
75	SAN BERNARDINO	SAN BERNARDINO	COPPER	41.76	41.78
76	INDIO	INDIO	RED	42.44	42.20
77	LA SOUTH	LA	WHITE	42.56	42.72
78	NEWHALL	LA	TAN	42.42	42.04
79	LA WEST	LA	PINK	42.44	42.70
80	TRUCKEE	TRUCKEE	GREY	42.40	42.66
81	BALDWIN PARK	LA	ORANGE	42.60	42.66
82	LA EAST	LA	YELLOW	42.52	42.30
83	SANTA FE SPRINGS	LA	GOLD	42.12	42.26
84	ONTARIO	LA	ORANGE	42.60	42.66
85	EL CENTRO	EL CENTRO	BLUE	42.34	42.10
86	SANTA ANA	SANTA ANA	PURPLE	42.40	42.66
87	SAN DIEGO	SAN DIEGO	ORANGE	42.60	42.66
88	COALINGA	FRESNO	PINK	42.44	42.70
89	ANTELOPE VALLEY	LA	TAN	42.42	42.04
90	TRINITY RIVER	REDDING	RED	42.44	42.20
91	REDWOOD CITY	SAN FRANCISCO	SILVER	42.00	42.28
92	OCEANSIDE	SAN DIEGO	GOLD	42.12	42.26
93	MILLOCS	CHICO	BROWN	42.50	42.02
94	AMADOR	STOCKTON	WHITE	42.56	42.72
95	CRESCENT CITY	HUMBOLDT	GREEN	42.54	42.24
96	OAKLAND	OAKLAND	GOLD	42.12	42.26
97	BARSTOW	INDIO	RED	42.44	42.20
98	GLENDALE	LA	BROWN	42.50	42.02
101	ARROWHEAD	SAN BERNARDINO	COPPER	41.76	41.78
102	TEJON	LA	TAN	42.42	42.04
103	TRACY	STOCKTON	YELLOW	42.52	42.30
104	CHICO	CHICO	BROWN	42.50	42.02
105	GARBERVILLE	HUMBOLDT	GREEN	42.54	42.24
106	MORONGO BASIN	BARSTOW	WHITE	42.56	42.72
108	EL CAJON	SAN DIEGO	GOLD	42.12	42.26
109	MALIBU	LA	PINK	42.44	42.70
112	SACRAMENTO,S.	SACRAMENTO	BLACK	42.46	42.70
113	CAPISTRANO	SANTA ANA	GREY	42.40	42.66
114	NEEDLES	BARSTOW	WHITE	42.56	42.72

1/15	TEHACHAPI	SAN DIEGO	GOLD	42.12	42.26

RAILROADS

Gary L. Sturm and
Bill Farmer, Editors

Send information about railroad frequencies and their uses, railroad radio system details, and related questions to:

Bill Farmer, P.O. Box 1838, Thousand Oaks, CA 91360

The warmest of New Year's greetings from the Railroads Column to all our readers! We're pleased that we have several contributions from members this month, and we want to reassure everyone that no information was left out of the Newsletter to make room for the index that was printed in this column last month. We print all the information that we receive, and still keep asking for more!

Bob Stockfish (WI-50) sent an article from "Communications News" which reviews the various uses of radio communications by today's railroads. These include voice communications between engines and cabooses, between trains and dispatchers using remote base stations located along the lines and operated by telephone lines or microwave links, data transmission from the rear of cabooseless trains to the engine, talking defect detectors, remote control of locomotives, and so on. The Advanced Railroad Electronics System (ARES) is described as the next stage in railroad communications.

ARES was also the subject of a short Associated Press article which appeared in the Los Angeles Times on August 30. After initial tests on Burlington Northern determined that the equipment could withstand the rigors of freight train service, BN announced further tests of the system would be made beginning this winter. The new year-long test will attempt to determine in what ways, and to what extent, the system can help railroad operations. Satellite receivers and computers were to be installed on 17 locomotives for the test in northern Minnesota. The receivers pick up signals from four Air Force satellites and use them to determine the locomotive's exact location, within 150 feet. Speed can be determined to within one mile per hour. This information can then be relayed to a central computer at the dispatching office, where it can be used to predict arrival times, prevent collisions, and assist in overall supervision and planning.

Former member Kent Hawkins (MO-085) wrote to ask for Burlington Northern frequencies in the Springfield, MO area, particularly for railroad police. He says he thinks the BN police are using 160.710, but he hears only one side of the conversation. Kent sent a self-addressed stamped envelope, so we sent him a reply saying that our records show 160.920 as the former St. Louis-San Francisco Railway systemwide police frequency. It probably is still in use, but we would like someone to confirm this.

We also sent Kent a list of the freqs licensed to BN in Missouri:

160.230	160.500	160.620	160.665	160.830	160.905	160.920
161.070	161.370	161.400	161.520	452.900	462.050	467.050

The last two are in the business band and not likely police, but it would be interesting to know what BN is using them for. We do not have any specific listings for Springfield in our records, so if any member has them or can check out the above channels for us, we'd appreciate hearing from you.

UNION PACIFIC MAINTENANCE CHANNEL

by CHARLES VARNES (CA-LA-440)

The new Union Pacific systemwide maintenance-of-way channel, 160.605 MHz, is in use in the Los Angeles area. I put the frequency into my bearcat 250 in September and have heard numerous transmissions since then.

When conversations are concluded, if the channel is not cleared the carrier keeps the scanner locked onto the channel. The system appears to operate like the PBX, but does not appear to "time out" as the PBX does if there is no conversation for a time.

HIGH BAND SKIP?

by CHARLES VARNES (CA-LA-440)

I do most of my railroad frequency monitoring from my home located at an elevation of approximately 1100 ft. near the intersection of the I-10 and I-210 freeways in eastern Los Angeles County. The radio is a Bearcat 250 with its own antenna. I do not have an outside antenna.

At about 0750 hours on July 26, 1986, I heard a very badly broken transmission on Santa Fe frequency 160.260 MHz. One of the parties to the transmission indicated that he had difficulty receiving the transmission and suggested that the "Bill Williams" transmitter be used. Shortly thereafter the quality of reception improved.

At that point I checked the Santa Fe PBX listings published in the September, 1984, RCMA Newsletter and found that there is a transmitter located on Bill Williams Mountain, Arizona, and that it has a 160.260 MHz output!

Approximately one hour later I monitored a second transmission between the same parties. I have not had any more such "catches."

[Ed. note: Thanks for the interesting reports, Charles! This is the first instance of skip reception we've heard of in the railroad band. Do any other members have reports of skip reception of railroads?]

WASHINGTON (D.C.) METRO

by ALAN G. HENNEY (MD-069)

In your April column you printed the WMATA Metrorail frequencies when I was looking for the frequency that was used by the Alexandria and Shady Grove car yard departments. On the latest FCC microfiche update the WMATA has two new frequencies:

161.415 KCA 285 DC, Wheaton MD & Falls Church VA
160.025 KSL 841 DC only

I don't believe they have completed the Wheaton or Falls Church stations as of yet. Hope we get more info. on these frequencies soon. I have not monitored anything on either 161.415 or 160.025. My guess would be that the 161.415 is another yard dept. freq. as it has the same call sign as the other car yard depts. The non-car depts. (road, MofW, PD, etc.) seem to use "KSL 841". I will continue to try 161.415 and 160.025 and will send you anything of interest.

[Ed. note: Thanks for your continuing research, Alan, we still need those freqs for Alexandria and Shady Grove yards. Looking at a 1976 map of the projected Metrorail system, Wheaton looks like it is on the red line north of Silver Spring, and Falls Church appears to be on an extension of the orange line to the west. Perhaps they are far enough apart that the same frequency could be used at both. Your reasoning that 161.415 will be a yard channel seems logical, since it is on the same license (and call sign) as the other yards, and both locations are near the ends of lines where yards would likely be built. 160.025 appears to be a typographical error (of which there are many in the microfiche) since it is outside the railroad band and 161.025 is used for maintenance of way throughout the system; also the call sign is the same as for the other 161.025 stations.]

TWIN CITIES GUIDE

by JOHN P. JOHNSON (WI-084)

I just received my October RCMA today, and decided it was a good time to sit down and write to your column. [We agree! -ed.] I am an avid railfan and have some information to pass along to you and to other members.

I would first like to recommend a new publication. "The New Twin Cities Railfan's Guide" printed by Craig Wiester is an excellent source of information for anyone interested in the Minneapolis/St. Paul, MN area. Printed on computer paper, the 20 page guide lists all of the favorite places to take railroad pictures, terminal operations, train lineups and numbers, and a full page of railroad radio

frequencies. It is a fine book and I fully recommend it to anyone. The cost is the best thing—only two dollars. Send $2.00 to Craig M. Wiester, 1917 James Avenue South, Minneapolis, MN 55403-2832. Also included is a page description of the International Airport.

[Ed. note: I agree this is a worthwhile purchase. I bought one a couple of years ago. It is kept updated in Craig's computer so you get a current printout when you order one. —Bill]

Now I'll take a little space and let you know what frequencies I listen to in the Eau Claire/Northwestern Wisconsin area.

160.890	Ch 1 Chicago & North Western road
160.455	Ch 2 Chicago & North Western yard
161.370	Ch 1 Soo Line road—Twin Cities
161.520	Ch 2 Soo Line yard
161.085	Ch 3 Soo Line road—outside Twin Cities
160.770	Ch 4 Soo Line road—ex-Milwaukee Road lines
161.100	Ch 1 Burlington Northern road

So with that I'll go for now and sit back and read the rest of the RCMA Newsletter. I also want to say that I enjoy the article each month and feel you are doing an excellent job. Keep up the good work.

[Thanks for your kind words and especially for your contribution, John. -Bill]

UNION PACIFIC—STOCKTON, CALIF.

by (CA-SJ-010)

I am a federal guard working at Rough & Ready Island (U. S. Naval Communications Station), Stockton, CA. We have a railroad service that enters the base once or twice every other day, either the Santa Fe or the Union Pacific. As it happens, we also have a U. S. Border Patrol office on the base as a tenant activity. A couple of days ago a Union Pacific detective entered the base to have three illegal aliens booked and deported. As he was on the way out I asked him for the Union Pacific Railroad frequencies in the Stockton area. Here they are:

160.740	Ch 1 Road & Dispatcher
160.515	Ch 2 Road & Dispatcher
160.290/161.520	Ch 3 PBX
161.025	Ch 4 Maintenance of Way
160.275	Ch 5 Special Agents (police)
161.280/160.785	Ch 6 PBX (ex-Western Pacific)
160.380	Ch 7 ex-Western Pacific road
160.380/160.260	Ch 8 ex-Western Pacific dispatcher

[Contributor's name withheld by request -ed.]

MORE FCC SHORTLINE DATA

by BILL FARMER (CA-VE-010)

Continued perusal of the January 1986 FCC microfiche, as time permits, has turned up data on a few more shortlines:

Anthracite Railway, located somewhere in Pennsylvania, has licenses on 160.545 and 160.605.

Colorado & Eastern, operating in Denver, has also taken over part of a former Wabash branch out of Council Bluffs, IA. Its Denver frequency of 160.845 is also being used in the Omaha-Council Bluffs area.

Dakota Southern is licensed on 161.535 at Avon, SD and Wagner, SD.

Indiana Railway Museum at French Lick, IN has a license on 151.655.

New England Southern, operating several branches in Massachusetts and New Hampshire, is licensed on 160.395 and 161.520, in addition to 161.025 which we reported earlier as their only active channel.

Pioneer Valley RR at Westfield, Mass., is licensed on 160.335 and 161.085.

Pocono Northeast added a business band license on 461.875/466.875 at Wilkes-Barre, PA.

Shortlines continue to spring up and we need frequency data for all of them. If you have information on any of these new railroads, we would like to hear from you!

Chicago Central & Pacific at last report was still using ex-ICG frequency 161.190 but is expected to get its own frequency soon.

A major new railroad, the Chicago, Missouri & Western, was set to take over ICG's routes from Joliet, IL to St. Louis & Kansas City. Amtrak trains between Chicago and St. Louis use this line.

Cimarron River Valley RR has an ex-Santa Fe branch at Cushing, OK.

In Arizona, the Copper Basin Railroad began operation June 1, 1986 on the former Southern Pacific Hayden branch and Kennecott Copper Company Ray Mine railroad.

L. B. Foster Company bought 824 miles of route from Chicago & North Western between Winona, MN and Rapid City, SD. Included in the deal were 156 miles of trackage rights on C&NW. The new railroad is called the Dakota, Minnesota & Eastern.

The Dodge City, Ford & Bucklin RR is in Kansas, and presumably operates at one or more of those points.

Escalante-Western Railway operates coal trains between the Plains Escalante Generating Station (PEGS) near Prewitt, NM and Lee Ranch Mine, NM over Santa Fe trackage. It uses the Santa Fe road channel while enroute, but it has its own switching channel for use while switching cars at the PEGS power plant. It may be licensed to the railroad's owner, Western Fuel Associates.

The Indiana Railroad bought the former ICG line between Indianapolis and Sullivan, IN.

Northern Missouri RR reportedly took over an ex-Wabash branch from Kelley, Missouri northward to the Iowa state line, where it connects with the Colorado & Eastern running southward from Council Bluffs.

A railroad called the Ottumwa Connecting RR has ex-Burlington Northern NW-2 locomotive 517. Presumably it is at Ottumwa, IA.

The Southern Pacific Susanville branch in northern California has been leased to Sierra Pacific Industries, the only shipper on the line. Sierra Pacific has contracted with Quincy Railroad to handle operations. Quincy RR is not known to use radios on their line at Quincy, CA.

The Berkshire Scenic Railway has been reported to be operating tourist service on an ex-New Haven (now Boston & Maine) branch between Lee and Great Barrington, Mass.

Fremont & Elkhorn Valley is operating steam excursion trains out of Fremont, NE over a former Chicago & North Western branch.

Another tourist railroad is the state-owned Old Colony & Newport, running on an ex-New Haven line between Newport and Green Animals, RI.

Up north in Canada, shortlines may begin taking over branch lines as they are doing here in the States. The first one we know of is the Central Western Railway at Stettler, Alberta.

Thanks again to all who contributed this month and we look forward to hearing from many more of you in 1987! Happy New Year and so long until next month...

—Gary & Bill

1987 World Radio TV Handbook The 1987 WRTH will be published in Dec. 1986 or Jan. 1987 and retail at approx. $19.95+shipping. Prepublication orders are being taken at $17 Book Rate or United Parcel Service (please specify) in the USA only. First Class Mail is $18. CA residents, please add $1.02 sales tax. The deadline for this special price structure is **20 January 1987.** Thereafter, until further notice, the price is $20 for Book Rate or UPS; First Class Mail will be $21. Orders, with check or money order payable to **CENTURY PRINT SHOP**, including applicable sales tax, should be mailed as early as possible to: Century Print Shop, Don Erickson, 6059 Essex St., Riverside, CA 92504-1599. (Please mention your club affiliation or source of info when ordering). Inquiries welcome at (714) 687-5910. Back copies of WRTH, 1981 thru 1984 and 1986, may be ordered at $15 ea., 2/$27, 3/$39, 4/$48, mix or match years.

TECHNICAL TOPICS

Send all equipment reviews, technical articles, technical tips, and questions on such subjects as receivers, antennas, preamps, accessory equipment, repeaters, links, tones, scramblers, non-voice data transmissions to:

Stephen A. Kayworth, 21551 Kapok Circle, Boca Raton, FL 33433

FASTEN YOUR SEATBELTS PLEASE

I recently read an article in one of the local newspapers (Miami Herald, 9/9/86, Sec. B, Action Line) about a man who was quietly sitting reading his newspaper when he suddenly started hearing voices in the room. It was reported that he heard the words, "...and make sure your seat backs are in an upright position." Upon hearing this, the man looked out the window and saw a prop-jet making a landing at the local airport about a quarter of a mile away. No electrical devices were on at the time, so it was a mystery as to how the man was able to hear the voice from the plane.

The newspaper's investigation led to the following explanation. It turns out that the man had a metal lamp beside his reading chair. The lamp in question was constructed of a number of different types of metal. Whenever different, or dissimilar, metals come in contact with each other, they can, under the right conditions, form a diode or rectifier which is capable of changing radio signals into audio signals. The lamp itself probably acted like a natural speaker, and, thus, the signals became audible to anyone who happened to be nearby.

Normally, the instructions to the passengers are not broadcast over the radio but over the plane's PA system, but in the case of this particular commuter airline, the same system that is used to communicate with the tower is used to give instructions to the passengers. Because the instructions were also broadcast over a radio channel, it was possible for them to be received and rectified by the lamp.

This unusual occurrence points up something which I have covered in the past regarding intermod - those unwanted signals which pop up on your scanner from time to time. Intermod can come from a variety of sources, and one such source can be from a situation similar to the one described above. I mentioned that when two dissimilar metals come into contact with each other they can form a diode junction under the right conditions. The right conditions can be as basic as the fact that the two metals are merely in contact, or something more could be required.

Corrosion or oxidation can greatly increase the chances of two dissimilar metals forming a diode junction. What's more, a diode junction can be formed between two similar metals when corrosion or oxidation is present. I have talked in the past about various filters which can help alleviate your intermod problems when using outside antennas, but there are some basic considerations about the antenna itself which should be discussed.

Whenever the antenna is assembled, there are all sorts of metal-to-metal joints, and each one has the capacity of becoming a diode joint. It is important, when initially assembling the antenna, to make sure that all metal-to-metal surfaces are clean before they are assembled. After the antenna is assembled it is important that all the joints be tight so that good electrical contact is made between them. Once the antenna has been assembled and all the joints are sufficiently tight, you can spray each joint with some sort of clear sealer to reduce the oxidizing effects of the atmosphere on the metals, reducing even further the chance of a diode junction occurring. It would be wise to periodically take your antenna down and disassemble it, buffing all the joints with some fine steel wool before reassembling it. Once you have done all these things, you can be assured that you have done much to reduce the chance of intermod being caused by your own antenna.

Best wishes to all of you for the new year before us. I hope you all prosper greatly in it.

'til next time,

Steve

VHF MARINE

Send information, articles, frequencies and their use, and questions that relate to private, commerical, and Coast Guard VHF maritime and inland waterways radio communications to:

Emmett L. Baxter, Jr., 4122 Granby St., Norfolk, VA 23504

Hello and welcome to your January 1987 VHF Marine Column.

Our first report comes from Gary (NY-291). He gives us the address of the publisher of the tugboat book entitled "On the Hawser"

Tugboat Photos & Research
2861 Bardy Road
Santa Rosa,Ca. 95404

This book lists U.S. Tugboats along with descriptions and technical facts of each boat.

Also Gary says that their is another book entitled "Merchant Vessels of the U.S.".It lists all the technical information on all U.S.registered Merchany Vessels.

Our next report covers the Fire Department at the Coast Guard Station Alameda,Ca.. It comes from David (CA-SF-025).

Frequency: 171.3625 Mhz.
Address: Coast Guard Island,Alameda,Ca. 94501-5100
Title of Facility: USCG Support Center
Number of Fire Stations: One
Number of Fire Engines: One (Call Sign is Engine One)
Callsigns of Supervisors: Fire Chief,Crew Chief
Personnel: 8 Fulltime,14 Part-time. The Fire Chief is a civilian, all others are USCG active duty.
A hazardous materials team is operated by the Marine Safety Office,which is also located on the island.
Medical aid calls are as follows: First responder is the on duty hospital services technician and Engine One. Transport & backup is provided by the City of Alameda Fire Deptartment.

Our next report comes from Jim (CA-SF-030). Jim states that the new Coast Guard Station at Grand Haven,Mi. has been delayed for at least 2 years.

The following is Jims report.

He has some info on some old stuff, and also everything he has so far for this area.

In his loggings for the San Francisco area, He once mentioned a station "KA-97374" heard on 156.800. He did some research and found a USA-wide liscense under the name "Bernard J. Barden". The rest still remains a mystery. No luck with "KU-6081".

Now on to his loggings from St.Joseph,Mi..

Marine Operators:

156.800,161.800	- KSK283	- ID "Benton Harbor/St.Joe Marine Op"
156.800,161.825		- ID "Waukegan"
161.850	- KLU757	- ID "Burns Harbor Radio"-Mi.City,In.
156.800,161.875		- ID "Port Washington"
156.800,161.900,161.925		- ID "Chicago"
156.800,161.925	- KIL924	- ID "Benton Harbor" (Automated)
162.000	- KQU578	- ID "Burns Harbor Radio"-Portage,In.

Miscellaneous:

156.800,156.500	- KSA278	- ID "Chicago Tug Office" Great Lakes Towing-Chicago,Il.
156.800,156.500	- KSF914	- ID "American Oil" Amoco Oil Co.-Chicago,Il.
156.800	- KSJ428	- Calumet Marine Towing-Chicago,Il.
460.325		- Heard "Marine Unit 2"of Chicago,Il.

Coast Guard:

156.800,157.050,157.100,157.150 used

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Group Milwaukee,Wi.:      Chicago Air Station
--------------------      Station Wilmette,Il.
                          Station Calumet Harbor,Chicago

Group Muskegon,Mi.:       Station St.Joseph,Mi.
-------------------       Station Michigan City,In.

Coast Guard Vessels:      CG-44389  - Based at Station St.Joseph
--------------------      CG-41375  - Chicago area
                          CG-1459 - Helo - From Chicago Air Station
                          CG-224229 - Based at Station St. Joseph
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This concludes Jims report and he promises us more in the future.

Our next report comes from Arnaud (LA-045-287). Arnaud sends in the list of Marine Channels and uses.

Ch.No.	Shore	Ship	Useage
WX1	162.550	------	NOAA Weather
WX2	162.400	------	NOAA Weather
WX3	162.475	------	NOAA Weather
WXC	161.650	------	Canadian Weather
Ch.01	156.050	156.050	Port Operations & Commercial
Ch.03	156.150	156.150	USCG Traffic System - Lower Mississippi
Ch.05	156.250	156.250	Port Operations
Ch.06	-------	156.300	Intership Safety
Ch.07	156.350	156.350	Commercial
Ch.08	156.400	156.400	Intership Commercial
Ch.09	156.450	156.450	Commercial/Non Commercial
Ch.10	156.500	156.500	Commercial
Ch.11	156.550	156.550	Commercial
Ch.12	156.600	156.600	Port Operations
Ch.13	156.650	156.650	Navigation - Ships Bridge to Ships Bridge
Ch.14	156.700	156.700	Port Operations
Ch.15	156.750	-------	Environmental
Ch.16	156.800	156.800	DISTRESS,SAFETY & CALLING (EMERGENCY)
Ch.17	156.850	156.850	State Control
Ch.18	156.900	156.900	Commercial
Ch.19	156.950	156.950	Commercial
Ch.20	161.600	157.000	Port Operations
Ch.21	157.050	157.050	Coast Guard Use
Ch.22	157.100	157.100	Civilian/Coast Guard Liason Channel
Ch.23	157.150	157.050	Coast Guard Use
Ch.24	161.800	157.200	Public Correspondence
Ch.25	161.850	157.250	Public Correspondence
Ch.26	161.900	157.300	Public Correspondence
Ch.27	161.950	157.350	Public Correspondence
Ch.28	162.000	157.400	Public Correspondence
Ch.63	156.175	156.175	USCG Traffic System - Lower Mississippi
Ch.65	156.275	156.275	Port Operations
Ch.66	156.325	156.325	Port Operations
Ch.67	156.375	156.375	Commercial
Ch.68	156.425	156.425	Non-Commercial
Ch.69	156.475	156.475	Non-Commercial
Ch.70	156.525	156.525	Non-Commercial (Intership)
Ch.71	156.575	156.575	Non-Commercial
Ch.72	156.625	156.625	Non-Commercial (Intership)
Ch.73	156.675	156.675	Port Operations
Ch.74	156.725	156.725	Port Operations
Ch.77	156.875	156.875	Port Operations (Intership)
Ch.78	156.925	156.925	Non-Commercial
Ch.79	156.975	156.975	Commercial
Ch.80	157.025	157.025	Commercial
Ch.81	157.075	157.075	Coast Guard Use
Ch.82	157.125	157.125	Government Use
Ch.83	157.175	157.175	Coast Guard Use
Ch.84	161.825	157.225	Public Correspondence
Ch.85	161.875	157.275	Public Correspondence
Ch.86	161.925	157.325	Public Correspondence
Ch.87	161.975	157.375	Public Correspondence
Ch.88	162.025	157.425	Public Correspondence (Great Lakes Only)
Ch.88	157.425	157.425	Commercial (Intership-Except Great Lakes)

Arnaud also sends in the following listings:

River Pilots - 155.100,155.840
New Orleans Harbor Patrol - Ch.A - 154.790
Ch.B - 155.790
New Orleans Port Engineering - 156.000,156.030,156.130
New Orleans Traffic Engineering - 156.140,156.150
New Orleans Levee Board D F1 - 155.090
D F2 - 155.990
Jefferson Levee Police - 154.025
Delta Queen Steamboat - 464.850
New Orleans Steamboat Co. - 461.975
NOAA Slidell Weather Dispatch - 162.550
NOAA Buras Weather Dispatch - 162.480
NOAA Monroe Weather Dispatch - 162.550
NOAA Lafayette Weather Dispatch - 162.550
NOAA Baton Rouge Weather Dispatch - 162.400
NOAA Alexandria Weather Dispatch - 162.480
NOAA Lake Charles Weather Dispatch - 162.400
NOAA Morgan City Weather Dispatch - 162.480
NOAA Shreveport Weather Dispatch - 162.400
NOAA New Orleans Weather Dispatch - 162.550
Louisiana/Mississippi Weather Network - 147.870

Also Arnaud says that he doesn't understand this column.He would like a better explanation on what we are printing in this column.

Well the purpose of this column is to exchange information that is marine related.This includes all Coast Guard information,Marine Businesses,Ships,Marine Activities and so on.

Here are some tidbits about the July 4,1986 Liberty Celebration in New York Harbor Courtesy of "The Navigator Magazine".

1,400 Coast Guard Auxiliarists used
370 Coast Guard Auxiliary Boats Used
2,000 Coast Guard Personnel used
100 Coast Guard Vessels used
2,000 Coast Guard Assists
38,000 Spectator boats
11,000 Sailors
22,000 Police
8 Helicopters

Well thats it for this month. Please let me hear from you so your news can be reported.

See you next month.

RCMA NEW MEMBERS LIST

AL 030 - ROBIN E GUTHRIE;LOT 2 SPARKS TRL PK;JASPER;AL;35501
AZ 078 - MARK EDWARDS;4605 S PRIEST RD #212;TEMPE;AZ;85282
CAKE027 - ROBT W BRUCE JR;3712 ROCKCASTLE DR;BAKERSFIELD;CA;93309
CALA671 - EDWIN LOFTUS;1416-D NORTH BRAND BLVD;GLENDALE;CA;91202
CALA672 - MIKE LUNDY;K6IL RADIO BOX 1260;MISSION HILLS;CA;91345
CALA673 - MIKE THOMAS;2044 BEVERLEY PLAZA #281;LONG BEACH;CA;90815
CALA674 - FRANK --LAST NAME AND ADDRESS WITHELD BY REQUEST
CALA675 - BOB WELLS;159 S ALLEN #101;PASADENA;CA;91106
CAMO004 - DENNIS GOUGE;1079 MAJELLA RD;PEBBLE BEACH;CA;93953
CAMO005 - MAX IRWIN;1863 PESCADERO DR;SALINAS;CA;93906
CAMO006 - BOB WOLOVSKY;BOX 2379;CARMEL;CA;93921
CAOR321 - JIM KASPAROFF;9106 WAGNER RIVER CIRCLE;FOUNTAIN VALLEY;CA;92708
CAOR322 - BILL --LAST NAME AND ADDRESS WITHELD BY REQUEST
CASD078 - LAURA QUARANTIELLO;1205 ROCK SP RD;SAN MARCOS;CA;92069
CASF044 - JOHN C BROWN;623 NORIEGA ST;SAN FRANCISCO;CA;94122
CAST004 - MATT LEUTHARD;301 EL RIO AVE;MODESTO;CA;95354
DE 021 - BILL MCCORMIC;760 RED CLAY DRIVE;BEAR;DE;19701
DE 022 - RUSS PAYNE;INDIAN LANDING C-14;MILLSBORO;DE;19966
FL 223 - CATHY PRENGER;4631 ROSE OF TARA WAY;ORLANDO;FL;32808
FL 224 - JERRY A KENNER;1524 KELBY RD;KISSIMER;FL;32743
GA 069 - NATHAN COHRAN;270 INDUSTRIAL BLVD APT F-3;VILLA RICA;GA;30180
IL 334 - RONALD --LAST NAME AND ADDRESS WITHELD BY REQUEST
IL 335 - JOHN HODAL;13660 GREENVIEW DR;ZION;IL;60099

NEW MEMBERS LIST continued

IN 095 - PAUL CRUSE;2897 COUNTY LINE RD;PORTAGE;IN;46368
IN 096 - RICHARD H SNYDER;RR#12 BOX 113;BRAZIL;IN;47834
KS 041 - WALTER ROBERTS;3RD BN 6TH CO GUARD PLD USACA;FT RILEY;KS;66442
MA 168 - WAYNE HADLEY;24 LYMAN WHEELOCK RD;SOUTH EASTON;MA;02375
MA 169 - DENIS COTE;87 MIDWOOD DR;SWANSEA;MA;02777
MD 123 - MICHAEL BABEL;14914 CHERRYWOOD DR;LAUREL;MD;20707
MI 175 - BRYAN EATON;11765 8 MILE RD;BATTLE CREEK;MI;49017
MI 176 - DARRELL DEBAUN;4179 FIELDVIEW;ORCHARD LAKE;MI;48033
MN 053 - MIKE WEBER;RT #2 BOX 84;NEWFOLDER;MN;56738
MO 103 - DENNIS R PARKER;1892 NE PARVIN ROAD;KANSAS CITY;MO;64116
NC 072 - PAUL KEARNS;3412 GARDEN RD;BURLINGTON;NC;27215
NJ 222 - PETER REICHERT;62 W WALNUT AVE;MERCHANTSVILLE;NJ;08109
NJ 223 - MARK --LAST NAME AND ADDRESS WITHELD BY REQUEST
NY 364 - DAVID R ALPERT;45 W 81ST ST #1006;NEW YORK;NY;10024
NY 365 - ROLAND STINER;820 WEST END AVE;NEW YORK;NY;10025
NY 366 - KENNETH D FROST;265 CODDINGTON RD;ITHACA;NY;14850
NY 367 - VICTORIA FAULKNER;128 3RD ST;ROME;NY;13440
NY 368 - CHRISTOPHER --LAST NAME AND ADDRESS WITHELD BY REQUEST
NY 369 - A --LAST NAME AND ADDRESS WITHELD BY REQUEST
NY 370 - GARY BERNSTEIN;149 - 33 259TH ST;ROSEDALE;NY;11422
OH 187 - KEVIN TRICKEY;312 JACKSON;DELTA;OH;43515
OH 188 - DAVID DUNN;4958 ARBOR VILLAGE DR #C;COLUMBUS;OH;43214
OH 189 - GARI L HAILEY;1433 HONODLE AVE;AKRON;OH;44305
OR 070 - PATRICIA --LAST NAME AND ADDRESS WITHELD BY REQUEST
OR 071 - ROBERT S ANDERSON;1752 NW GROVE LN;ROSEBURG;OR;97470
OR 072 - JIM --LAST NAME AND ADDRESS WITHELD BY REQUEST
PA 232 - WILLIAM --LAST NAME AND ADDRESS WITHELD BY REQUEST
PA 233 - CHARLES J SECOGES JR;1237 BUTLER ST;READING;PA;19601
PA 234 - LUTHER A CROSBY;700 W 5TH ST;BIRDSBORO;PA;19508
PA 235 - GLENN SCHOCH;617 N POPLAR ST;ALLENTOWN;PA;18102
SC 031 - ROBERT K. COOKE;717 SEVEN OAKS LANE;COLUMBIA;SC;29210
TX 186 - JAY DORSEY;BOX 156;ALANREED;TX;79002
TX 187 - CHESLEY --LAST NAME AND ADDRESS WITHELD BY REQUEST
TX 188 - JEFF BECK;9550 ELLA LEE LN #2108;HOUSTON;TX;77063
VA 115 - MIKE DURHAM;1016 WOODHAVEN DR;LYNCHBURG;VA;24502
WA 079 - STEVEN WILK;P.O. BOX 40374;BELLEVILLE;WA;98004
WA 080 - DARRELL DEZARN;2280 MINKLER RD #40;SEDRO WOOLEY ;WA;9____
WI 087 - PETER JANISCH;260 CAMP ST;PLATTEVILLE;WI;53818

The Radio Communications Monitoring Association is a radio club for persons interested in listening to two-way communications. RCMA was founded in May 1975 and is a Full Member of the Association of North American Radio Clubs (ANARC).

The goals of RCMA are:

1) To provide a fraternity for those who seriously pursue the hobby of monitor radio listening.
2) To try to be knowledgeable about two-way radio systems and operations.
3) To promote an understanding of the legal and ethical uses of monitor receivers.
4) To share information with and help other monitor radio listeners.
5) To try to understand and improve receivers, antenna systems and related equipment.
6) To offer suggestions and formal recommendations to manufacturers of monitor receivers and to manufacturers of other products related to the hobby.
7) To offer suggestions for and encourage the organizing and conducting of RCMA meetings and tours for groups in any geographic area.
8) To encourage and to facilitate contact between members.
9) To publish a regular club newsletter devoted to the hobby.

RCMA
P.O. Box 4563
Anaheim, CA 92803

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